

FLEXIBLE VS FIXED STAGE AND SEATING
FOR A LOCAL CIVIC THEATRE

by

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NUMEROUS PAGES
THAT HAVE INK
SPLOTCHES IN THE
MIDDLE OF THE
TEXT. THIS IS AS
RECEIVED FROM
CUSTOMER.**

**THESE ARE THE
BEST IMAGES
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Part 1

THE REPORT: Flexible vs Fixed Stage & Seating

Chapter 1

INTRODUCTION

Manhattan Civic Theatre, also referred to as MCT, is a community organization, an all-volunteer group with the primary objective of providing the opportunity to participate in live theatre for the community members. Participation includes the experience of producing a play as well as the experience of watching a play. To meet the community participation objective, MCT plans productions, promotes theatre as an art form and presents plays. The organization consists of members of Manhattan Civic Theatre who pay a nominal yearly membership fee, a board of directors elected by the members, several committees appointed by the board, and a changing group of directors, actors, and technicians who present each play.

The history of Manhattan Civic Theatre includes its early days producing plays at the Community House at 4th and Humboldt in Manhattan, from 1951-1961. After an inactive period there was a revival of Manhattan Civic Theatre in 1964. Since 1964, the major problem of the group has been the lack of a facility of its own. Plays in the 1960's and early 1970's were presented in the Community House which was and still is the location of the Manhattan Parks and Recreation Department. The gymnasium of the

Community House was available to the group for one week. During that time curtains, platforms for a stage, risers for seating, and a set had to be built. Rehearsals and three or four performances later everything had to be removed. Even this limited access caused scheduling conflicts. After a year "on the road," performing in schools, Manhattan Civic Theatre leased part of the Elks Club building on Houston Street. In 1976 in the Elks Club, an end stage was built and dinner theatre was instituted. Losing the lease in 1979, the group moved to the present location, the basement of City Hall at 11th and Poyntz in Manhattan. The basement was never considered a permanent location. The ceilings are too low; columns 14 feet apart block sightlines; the space is too small; and the stairs make the theatre inaccessible to the handicapped.¹

The problem facing Manhattan Civic Theatre now is a possible loss of lease and an urgent need for a permanent location. During the process of writing an architectural program with members of the group in the Fall of 1981, an issue arose which, though resolveable, needs further attention as a factor in choosing a new location. The physical point around which the controversy revolves is the

¹Manhattan Civic Theatre, minutes and records, 1954-1981.

stage configuration and the relationship of the audience to the stage. Although the members are not as extreme in their viewpoints as might appear from the description given here, two points of view have been separated for the sake of comparison.²

The Audience-Oriented View. The theatre depends on the audience for its financial existence. All design focus should be on the public areas: the lobby/lounge and the auditorium. People want to be entertained by familiar plays, thus potential box office draw is the main criteria for choosing a season of plays. Light drama, comedies, and musicals are the best choices for a community theatre. Heavy drama or avant garde works should be left to educational institutions or done only as incidental productions, not on the main bill. According to this view, a luxurious feeling in familiar surroundings calls for fixed seating and stage areas. The use of a proscenium is implied because of the proscenium's traditional appeal and its suitability for drawing-room comedy.

The Production-Oriented View. While accepting the fact that one cannot have theatre without an audience, this view contends that if the performance is good, the audience

²Refer to "An Architectural Program for Manhattan Civic Theatre" in Part 2 of this report.

will follow. The criteria for play selection are quality of writing and form, and variety of style. The theatre has a mission to create theatrical experiences in Manhattan that would not occur otherwise. A season that includes a range of styles of plays involves the greatest range of people both as audiences and in production. As the performance comes first, the proper technical support areas are essential as well as the appropriate stage configuration for each kind of play that is performed. The stage form implied by this viewpoint is the adaptable theatre which can be arranged to suit any performance.

The stage form is only one of the primary decisions that must be made before a theatre is designed; but the other decisions are easier to make. Audience size is an initial determination that depends on (1) the size of available spaces being considered for the theatre, (2) the number of tickets that must be sold to break even on a performance, and (3) past experience with potential audience sizes. The intimate quality of a small theatre is important; a figure for MCT has been set at 150 to 200 seats by the board of directors. Another important decision is the size and number of specific supporting areas. Again, the size of available sites is a determining factor as well as the final decision on stage configuration and audience sizes. Support areas that are essential to production will be included. Those that increase audience comfort could be added after the essential needs are met. The fourth primary

decision concerns the kind and amount of equipment to be included in the support and production areas. Equipment for Manhattan Civic Theatre will consist of what is presently owned, with planning to include that which can be added as needs arise and funds become available.³

Before a decision can be made about stage configuration, the audience/performance dichotomy must be resolved. The two factions can be brought together by clearing up misconceptions, clarifying points of agreement, and compromising on a solution. In this report, the term "theatre" will be defined, and issues will be clarified. The suggested solution for stage form will be based on the specific needs of this community theatre, as stated in the program. The decision will also be influenced by the stage form's suitability for the kinds of plays that will be produced, as well as the limitations of a particular location.

³Jo Mielziner, The Shapes of Our Theatre, New York: Clarkson N. Potter, Inc., 1970, p.100. See also "An Architectural Program for Manhattan Civic Theatre," op. cit., in Part 2 of this report.

Chapter 2

CRITERIA FOR DECISION-MAKING

Opinions of Experts

There are several people with expertise in technical aspects of play production who have also designed theatres or studied the history of theatre design. Each of these people has written books on various aspects of theatre design and/or has served as a consultant on theatre architecture. Their opinions are biased, of course, by their own past experiences. Also, some of the writing was done in the early 1960's through the early 1970's, when the idea of non-proscenium theatre was not wide-spread enough to be acceptable to the majority. Adaptable stages were the most avant garde development at that time. Nevertheless, these people wrote about theatre design and are the experts. Their opinions will be considered in the decision on stage configuration for Manhattan Civic Theatre.

Eldon Elder is originally from Kansas and was educated in Kansas, Colorado, and at Yale. Elder is professor of stage design at Brooklyn College in New York and has also taught at Yale, College of the City of New York, and Boston College. A set designer, Elder was one of the co-designers whose theatre design was a winner in the Ford Foundation Symposium on the Ideal Theatre in 1961.

Jo Mielziner was born in France and educated in Europe and Pennsylvania. He is a set designer and theatre consultant in New York City. Mielziner was also a winning co-designer in the Ideal Theatre competition and was co-designer with Eero Saarinen of the Vivian Beaumont Theatre at Lincoln Center.

James Hull Miller is an American pioneer of the open stage, consulting on the design of over 40 theatres in the late 1950's and early 1960's for schools and communities. His background is in technical theatre, and he has experimented with a contemporary approach to stage craft for groups that could not afford the traditional forms.

Harold Burris-Meyer and Edward Cole wrote the book that has become the definitive source for theatre designers with the original 1940 version updated in 1964 and 1972. Burris-Meyer and Cole are conservative in that they believe actor/audience dichotomy is essential and that the proscenium is best because it allows "total uniform effect."⁴

Richard Southern is a British writer, lecturer, and theatre historian. His books promote the thrust version of the open stage and the acting style it requires. Southern is also a consultant to new theatres and is director of the

⁴Harold Burris-Meyer and Edward Cole, Theatres and Auditoriums (3rd ed.) New York: Reinhold Publishing Corporation, 1972, p. 128.

University Theatre at Southampton.

Stephen Joseph, also British, is with the Manchester Department of Drama and has edited several books of writings on theatre design and has written books on the history of theatre forms. Joseph is an expert on theatre-in-the-round and director of the first permanent theatre-in-the-round in England.

Walden Boyle was revolutionary for his time, writing in the 1950's, promoting arena theatre for its simplicity, intimacy, flexibility, and low cost. Boyle's theatres all consist of portable seating elements and stage platforms so that the entire room can be rearranged.

Theatre designer Peter Larkin was the major critic and moderator at the Ideal Theatre Symposium, an exhibition resulting from the Ford Foundation Program for Theatre design in 1961. His comments reflect an open awareness of the need for new theatre forms and the validity of each type of design.

Adrian Waller, Richard Leacroft, and Percy Corry are authors of books on community theatres. Waller, a Canadian teacher and director, and Leacroft, a British architect and theatre historian, see the need for adaptability in community theatres. Percy Corry, an actor, director, technician, lecturer, administrator, and theatre planner, is involved in amateur theatre and feels adaptable stage forms have no place in community theatres.

Horace Robinson and Richard Courtney write about

the educational theatre, both considering adaptability a necessity in the drama studio or teaching lab where the goal is to produce plays in a range of styles.

Objectives and Definitions

The criteria for decision-making must be based on the particular goals and objectives of Manhattan Civic Theatre. The major goals of the theatre group as derived from "An Architectural Program for Manhattan Civic Theatre," in part two of this report are:

(1) To promote community involvement through participation in theatre.

(2) To provide social interaction, entertainment, creative expression outlets, and cultural enrichment for community participants.

The theatre facility must also meet the following objectives:

- (1) permanence
- (2) excitement/stimulus/vitality
- (3) visibility
- (4) comfort and attractiveness
- (5) accessibility
- (6) proximity to downtown Manhattan

The arrangement of the building's interior spaces must allow for:

- (1) balanced actor/audience relationships
- (2) efficient maintenance and operation

- (3) acoustical and visual privacy
- (4) functional and efficient traffic flow
- (5) variety
- (6) cost effectiveness
- (7) potential for dinner theatre
- (8) individual identity of users
- (9) dynamic change/growth potential
- (10) preservation of building character

All activities that take place in the theatre building can be categorized as sub-activities under the major activities, which are performing, producing, administering, and viewing. The major goals are achieved when the viewing, administering, and producing activities meet at the point of performing. The stage form must facilitate the activities that allow the goals and objectives to be met.

The term that must be defined in order to clarify issues is that of "theatre," which should be qualified with the adjective "live." It is the "real physical presence" of actors and audience that separates a performance on stage from one on film.⁵ The feelings of the audience are released in the presence of other audience members: the contagion of feeling allows response, not just as individuals, but as a group.⁶ Interaction with other audience members can occur

⁵Stephen Joseph, New Theatre Forms, London: Pitman and Sons, 1968, p. 9.

⁶Albert Mehrabian, Public Places and Private Places, New York: Basic Books, 1976, p.221.

at a film; however it is the presence of actors that makes live theatre unique:

In a live performance there is somebody there, somebody whose artistry you can applaud, who comes forward as a person, not a character and personally accepts the gratitude and appreciation of the audience.⁷

Most of the changes in theatre since the 1920's were forced by the invention of the cinema and television and their widespread use in the Twentieth Century. Theatre has put the emphasis back on the "live," focusing on the actor and on audience participation. The result has been a striving for intimacy, for actor/audience oneness. Achieving intimacy, according to Richard Leacroft, results in:

...the identifying of the playgoer with the emotion and movement of the performers, 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.⁸

To further the goal of intimacy, actors and audiences have been placed in closer proximity so that visual and aural contact can be greater, facial expressions being a key factor in intimate theatre. The goal of all new stage forms has been to reach a "oneness" of actor and audience. The level of intimacy achieved by the new proximity has been so physical as to bring cries of protest by some critics, including Richard Southern, who calls for psychological closeness rather than such physical closeness that the audience is on

⁷Ibid., p.223.

⁸Richard Leacroft, Civic Theatre Design, London: Dennis Dobson, Ltd., 1949, p.39.

top of the actor. "We want to give him full elbow room, but we lose even more if we feel distant from him. We need a sense of withdrawal and advance."⁹

The other aspect of theatre that has been affected by film is that of scenery. Live theatre cannot hope to duplicate the ability of the camera to create a realistic, moving scenic world, controlling attention with selective focus and close-ups. Like modern art, Twentieth Century theatre has had to search for new forms of expression. The old theatre forms created naturalistic pictures, in front of which a two-dimensional actor performed. Scenery is now more symbolic, expressionistic, and three-dimensional, the focus being on the actor. Thus:

...theatre's hopes lie not in fake realism but in the re-emphasis of the very thing that makes theatre unique—the here and now of the dramatic event—the interaction of the performance and spectator.¹⁰

Community theatre falls between two extremes of live theatre. At one end is the professional company whose need to make a profit precludes risk-taking; plays must have box-office potential. Educational theatre, on the other hand, is funded by an institution. The educational theatre can be truly experimental, providing as much variety of experience as possible for student actors and technicians. Between the

⁹Richard Southern, The Open Stage, London: Faber and Faber Limited, 1953, pp. 31-33.

¹⁰Thomas de Gaetani in Adaptable Theatres, Stephen Joseph, ed., London: Association of British Theatre Technicians, 1962, p. 18.

rigidity of the professional stage and the freedom of educational theatre is community theatre, needing to pay its own way, but not needing to make a profit. Community theatre seeks to educate as well as entertain, but mostly it needs to involve the community.

A balanced slate has been the goal of Manhattan Civic Theatre's seasons in the past, in spite of the wish of a minority to concentrate on comedy. There is an active group who anticipate working on the classic each year; an almost completely different group becomes involved in musicals. It is unlikely that the trend will change from the present pattern of one drama, one musical, one comedy, one mystery and one classic in each season. More variety is added with "etcetera" performances that allow any kind of short, simple set show to be produced by interested individuals. Recent etcetera productions have included absurdist theatre. Children's theatre, summer reader's theatre and presentation of original works have also been included. The need to allow for variety will be a determining factor in choice of a stage configuration.

The support spaces that meet the needs of the performance and the areas that support the audiences are separate and entirely different. The two areas meet, however, at the point of performance:

Independently they have no life. Together they create living theatre. It is therefore the sensitive interrelationship of the two that makes theatre design a success or failure. All other areas and all external functions must be additive to and enhance these inner

functions.¹¹

To meet the needs of a community theatre that performs a range of plays and to facilitate the activities that meet the specific objectives of Manhattan Civic Theatre, the focus is on the audience/performer relationship. The needs of the audience as well as the performer can be met by providing support spaces that are essential for production as well as planning for audience comfort and convenience with luxuries to be added as funds become available. Each possible stage form will be evaluated on its own merits as well as for its potential to meet the requirements of Manhattan Civic Theatre.

¹¹Jo Mielziner, op. cit., p. 14.

Chapter 3

OPEN STAGES AND ENCLOSED STAGES

Besides different ways of addressing the fundamental issues of theatre, each possible stage configuration has implications on architectural form, on the methods used by directors and actors, on the technical aspects of the production, on the cost of production, and on the kinds of plays that can be performed.

Two architectural forms within which theatres are created are the form that houses the open stage variations and the form that houses the proscenium. The proscenium is an enclosed stage which is a separate physical structure from the audience space. Once the barrier of the proscenium arch is gone, the actors and the audience are in the same room. The three main alternative stage forms; the arena, the thrust, and the end stage, and all their variations, are open stages, because there is no architectural separation between actor and audience.¹²

Putting actors and audience in the same space will affect acting style. The actor behind the proscenium in front of scenery has a front focus referred to as linear projection. The actor stepping out of the proscenium can no

¹²Stephen Joseph, op. cit., pp. 6-9.

longer pretend the audience is not there. Open stage acting calls for organic projection, which recognizes actors as three-dimensional figures in a three-dimensional space. Organic projection is "multi-directional, with an inward focus."¹³ Open stage acting may also include "direct audience address" as an acting technique.¹⁴

Scenic investiture varies with the proscenium as opposed to open stage styles. The facilities for moving scenery present with an enclosed stage are often lacking in an open stage theatre. Scenery on the open stage is limited to suggestive elements, furniture and other three-dimensional set pieces. Lighting is used to create symbolic effects. Costumes and properties are more detailed and more important scenic elements viewed at a closer range. As position of the audience changes from unidirectional viewing, calculating sightlines and lighting angles becomes more complex.¹⁵

The proscenium is more expensive to build than open stages, especially if it includes the required technical support spaces. Open stages can be created in almost any large space. Producing a show on an open stage is cheaper because of less scenic investiture.¹⁶

Some plays were written specifically for the open

¹³Ibid., p. 65. ¹⁴Southern, op. cit., p.17.

¹⁵Burris-Meyer and Cole, op. cit., p. 195.

¹⁶Mielziner, op. cit., p. 65.

stages; others for the proscenium. The kinds of plays to be performed would be a factor in choice of stage form.

Chapter 4

THE PROSCENIUM

From the Greek "skene" came the term "proscenium," literally the stage floor itself. This term has come to define a type of theatre in which the proscenium arch is the divider between two distinct rooms, the actor's room and the spectator's room.¹⁷ Each audience member faces the same way through the arch into the actor's space. Other characteristics of the proscenium are a stage raised three to three-and-a-half feet, a curtain which can separate the actor's space from the spectator's space, lighting which completely darkens the audience, focusing attention on the actors, and extensive off stage support areas which are masked by the arch. Scenery can be moved vertically upward in a stage tower, horizontally into wings and vertically downward through floor traps.¹⁸

The proscenium as it appears in conventional Twentieth Century theatres is a relatively recent development in theatrical history. Its roots are Italian Renaissance, and its primary reason for existence is scenery.¹⁹

¹⁷Southern, op. cit., p. 43.

¹⁸Richard Courtney, The Drama Studio, London: Pitman and Sons, 1967, pp. 10-12.

¹⁹Joseph, op. cit., p. 6.

"Creating a scenic world" became more important as drama became more secular. The symbolism of religious drama was replaced by the physical detail of secular art. As the Renaissance easel painters were experimenting with perspective and realism, so were the scene painters experimenting with trompe d'oeil effects of backdrops and moving painted scenery. Actors performed in front of scenery which was framed by the first true proscenium at the Farnese Theatre at Parma, Italy in 1618. The arch was a screen that hid the mechanical apparatus that was being developed to change scenery. As scenic effects and scene changes became more sophisticated, plays became elaborate visual extravaganzas.²⁰ "The technicians were the stars of the era."²¹ "The actors were merely to fill gaps between the scene changes."²²

Puritan censorship had closed English theatres for the 18 years from 1642-1660. When theatre was re-established under Restoration monarchs, England looked to Italy rather than its own Elizabethan playhouses for a model. Inigo Jones built the first English proscenium with an extremely long forestage, retaining vestiges of the Elizabethan thrust, while creating distant scenic effects. The stage was raked to further enhance the perspective vista. The presence of

²⁰Mielziner, op. cit., pp.40-44.

²¹Ibid., p.44.

²²Joseph, op. cit., p.8.

the forestage, however, allowed audience/actor intimacy, until increasing desires for profits gradually replaced the forestage with seating. By the Nineteenth Century, the forestage was at most a narrow apron in front of a luxuriously gilded proscenium arch. A desire for realism in the 1860's, spurred by the plays of Henrik Ibsen, resulted in the box set, a naturalistic room with the fourth wall missing, so the audience could look in.²³

The proscenium has taken a beating from the critics for retaining vestiges of an obsolete style. It has been criticized for being a badly lit, ornate hole in the wall with too obvious a barrier between actor and audience. Expensive to build, the proscenium is also a costly stage on which to produce plays.²⁴ The most scathing criticism, quoted by Walden Boyle, is from Brooks Atkinson, theatre critic:²⁵

How did we ever get saddled with the rigid proscenium stage which assumes that everyone is going to write like Ibsen and Pinero and that Romeo and Juliet cannot be staged without \$60,000 worth of scenery and 24 sweating stage hands?

Other critics defend the proscenium: "Criticism

²³Mielziner, op. cit., pp. 44-53.

²⁴Burris-Meyer and Cole, op. cit., p. 6.

²⁵Brooks Atkinson in Central and Flexible Staging by Walden Boyle, Berkely: University of Californis Press, 1950, "forward."

stems from a misconception of its nature and slavish subservience to its framing function."²⁶ The proscenium, according to Burris-Meyer "permits directors and designers to relate performers to scenery secure in the knowledge that the whole audience will perceive the relationship in the same way."²⁷ Proponents believe that a proscenium is useful if it has an expanding/contracting arch, an extended forestage for flexibility, and the required backup facilities, especially a stage tower and wing space.²⁸

Certain plays apparently require a proscenium; those that require a box set and some Restoration comedies. They seem to demand a frame and the right to be viewed only from the front.²⁹

If one is adapting an existing building to a proscenium, ceiling height is an all-important criteria. The space should be rectangular and should not have support columns down the center.³⁰

²⁶Horace Robinson, Architecture for Educational Theatre, Eugene: University of Oregon, 1970, p. 32.

²⁷Burris-Meyer and Cole, op. cit., p. 128.

²⁸Mielziner, op. cit., p. 72.

²⁹Adrian Waller, Theatre on a Shoestring, Toronto/Vancouver: Clarke, Irwin & Company, Ltd., 1972, p. 111.

³⁰Eldon Elder, Will It Make a Theatre?, New York: Drama Book Publishers, 1979, pp. 6,7.

The proscenium is only functional if it is built with the support spaces for moving scenery, not likely to be possible for Manhattan Civic Theatre unless the group raises the money to build a new building, which is not a first choice, or adapts a building that already has a proscenium stage. The proscenium does not promote intimacy or change and growth, nor does it give the image of creative vitality. The building of a proscenium with its elaborate trappings is not cost effective. Although many plays were not written for the proscenium, there is precedent for doing any kind of theatre on the proscenium, so some variety is possible. If Civic Theatre had a proscenium, the addition of an ample forestage would be desirable to increase flexibility and actor/audience contact.

Chapter 5

OPEN STAGE FORMS

Open stage forms are older and more basic to the development of classical theatre than the enclosed form. When the actors and audience share the same volume, there is no attempt at architectural separation and little or no attempt at concealing the working elements of backstage operations; everything is in the open.³¹ Open stages vary by the degree of audience/actor contact, from an end stage, which is a proscenium with the arch removed, to the complete audience surround of the arena stage. As a broad category, the term "open stage" will be used here to include any configuration in which actors and audience share the same room. Each kind of open stage has advantages and disadvantages, and each is suitable for different kinds of plays.

The End Stage

The end stage has the same basic stage/audience relationship as a proscenium; it is the next step from proscenium towards audience contact. In an end stage the acting area is at one end of the room with all of the audience facing the same way toward the stage. Like the proscenium, the stage

³¹Robinson, op. cit., p. 114.

floor is raised and the audience is stepped or raked. As the stage usually extends the full width of the auditorium, there is no wing space. There is usually no fly space either, and scenery consists of two-dimensional flats or backdrops with three-dimensional set pieces. The acting style can be linear or organic. Actor access is from one end only, the rear wall.³²

A horseshoe or caliper stage is a variation on an end stage, with runways that lead from the front of the stage to side stages that begin to enclose the audience. Small scenes can be played on these side stages, or they can be used for processional scenes. James Hull Miller's open stage designs often include calipers or another feature of end stage variations, the amphitheatre style, bulging slightly into the audience area. Another variation on the end stage places the acting area in the corner in an L-shape, with the audience in another corner. Two walls are useable for scenery and for actor access.³³

The end stage in an existing building is an alternative when the building is long and narrow. An L-shape can take advantage of existing openings for actor access. Lower ceilings than those required for proscenium stages are

³²Percy Corry, Community Theatres, London: Pitman & Sons, Ltd., 1974, p. 10.

³³Courtney, op. cit., p. 14.

acceptable for the end stage.³⁴

Since there is no stage tower and little mechanical equipment, end stages are cheaper to build. Proponents like the conventionality; familiar ideas of presentation and performance are useable: "No theatre-goers need be perturbed."³⁵ The addition of a temporary arch is possible when considered absolutely necessary, but one writer feels an open end stage with a proscenium in front is a disaster, with the "disadvantages of both and the advantages of neither."³⁶ However, audience closeness is only slightly improved by the removal of the barrier of the arch; more contact is often desired. To improve intimacy, end stage theatres should be kept small; 300 is a good size.³⁷

An example of an end stage built for a community theatre is the theatre at Western Springs, Illinois, a James Hull Miller design. Like Manhattan Civic Theatre, the community theatre at Western Springs had been in existence for 25 years, had produced plays in many locations and in all possible manners, and was made up of people from all walks of life. The proscenium was rejected by this group as being uneconomical and the arena rejected as being too restrictive. Miller's design shows what can be done building a new structure on a relatively low budget. The building has a roof and ceiling that curve over the acting area

³⁴Elder, op. cit., p. 72. ³⁵Joseph, op. cit., p. 59.

³⁶Ibid., p. 60. ³⁷Ibid., p. 58.

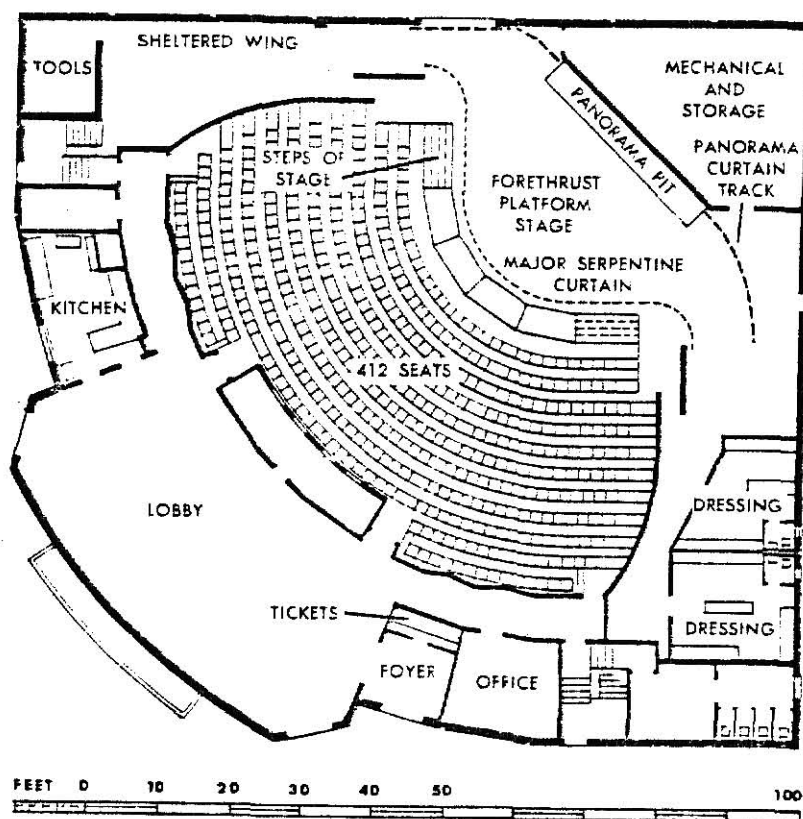
and audience rather than an expensive stage tower. A plaster cyclorama and built-in projection capabilities substitute for dropped scenery. Lighting equipment is integral with the structure and is serviced via catwalks. The theatre seats 412 on steeply raked terraces. The large, 25'X52', stage has a flexible thrust which makes it more of a quarter circle than a true end stage. Under the sloped seating are rehearsal spaces and storage. The Western Springs theatre, however, is a typical Miller design; not a substitute proscenium, but a stage form in its own right. To be effective, the special requirements of this stage form must be met.³⁸

An example of an end stage which tries to be a substitute proscenium and fails is the Salina, Kansas, Community Theatre. The stage at Salina has no fly tower, no wing space, and almost no rear stage space. There is no true proscenium arch; all lighting is visible, and there is no equipment to hide. Modified calipers extend from the sides of the stage; covering the orchestra pit to create a fore-stage does not connect them. Seating is in a horseshoe pattern; the "lobby" consists of the walkway around the rear of the seating and the foyer that contains the box office. The people at Salina call their stage an inadequate proscenium; it is also an inadequate end stage. The architect

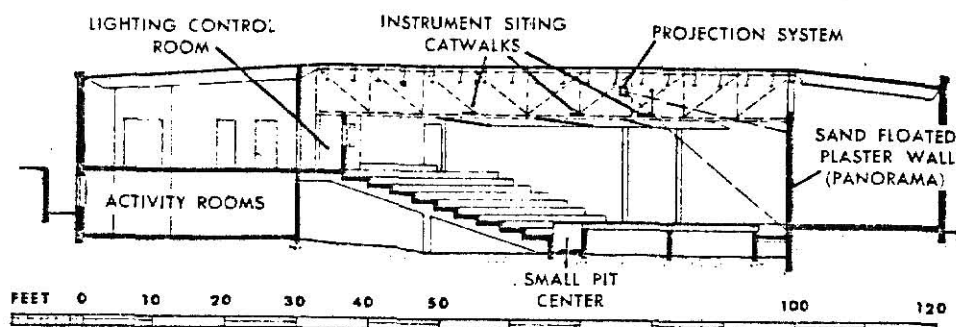
³⁸The HUB Electric Company, The Open Stage, Chicago, 1965, pp. 10, 11. See also Illustration 1., p.27.

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PLAN VIEW



SECTION

Illustration 1
 Western Springs, Illinois
 Community Theatre
 Designer: James Hull Miller

who designed it did not consult with the group on theatrical needs, but presented a design for a proscenium-type stage that was unaffordable. The support spaces were eliminated, leaving little public area, no workshop area and no storage. The greenroom and dressing room are in the basement, and were originally undesignated space. The group is the most satisfied with the greenroom area because they have constructed the necessary walls to create men's and women's dressing areas and costume storage areas, two offices, and a large open space for construction of costumes, small set pieces, and for rehearsals and meetings. Another inadequacy is an inaccessible and unenclosed technical control booth, located at the rear of the auditorium, but only reachable via catwalks by a ladder backstage. In appearance the building is attractive, with ribbed concrete cladding over concrete block construction on the exterior and warm colors with a high tech appearance on the interior. The warm beige of the exposed steel ceiling joists and catwalks is a disadvantage; the light color reflects stage light and is distracting. The director of Salina Community Theatre feels that the group was naïve in not demanding more from the architect; the addition they are now planning will be designed by the group to suit their needs. The theatre does not work as a proscenium because it has none of the necessary trappings of the proscenium; neither does it have the care and concern for function that a James Hull Miller design has. In appearance, the Salina Community Theatre is similar to

a James Hull Miller open stage, but is an example of how the open endstage must be designed as a form in its own right.³⁹

If Manhattan Civic Theatre chose to build a new structure, a properly designed end stage could be functional, attractive to audiences, stimulating and exciting. Flexibility would have to be a part of the plan to ensure variety. The cost would not be as great as a full-fledged proscenium, but building would be more expensive than adapting an existing building. Care would have to be taken to insure that the open stage techniques of acting and stage design would be used; it would be a mistake to treat the stage as a substitute proscenium.

The Thrust

The thrust configuration increases audience contact by extending the stage into the audience while wrapping seating around three sides. The stage can be floor level or raised with steps leading down into the audience. The fourth side of the stage provides actor access and some two-dimensional scenery space. The thrust serves the purpose of bringing the actor out of the picture; he or she is in the audience and often uses the technique of direct audience

³⁹Personal conversation with Charles Kephart, managing director, Salina Community Theatre, and Tom Ward, technical director, Salina Community Theatre, January, 1982. See also Appendix, this report, pp. 136-138.

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address. The scenery in the foreground is a furnished, three-dimensional acting area.⁴⁰

The thrust stage appears along with the arena in primitive theatres; being semi-circular, it evolved from the circle when actors wanted to perform in front of a background. Greek theatre at its most refined had the audience seated in a semi-circle around the orchestra with the actors on a raised platform backed by the skene. There were usually three doorways on this skene or rear wall behind which were changing rooms. From the Greek use of natural hillsides for theatres, developed the concrete, stone arches and the vaults of Roman theatres, retaining the thrust configuration. In Medieval Britain, religious plays took place first in churches and later on the steps as audiences grew larger. The plays became more secular when performing moved outdoors, and minstrels and story-tellers were eventually acting from wagons and booth stages. The booth stage had the elements of a thrust with a rear room for changing and a three-sided acting area. The platform of the booth stage was fairly high and often had a canopy above. When plays were presented in an innyard, one side served as a changing room, while spectators filled galleries on three sides or watched from the courtyard below. When James Burbage designed "The Theatre" for Elizabethan plays, it was modeled after the

⁴⁰ Southern, op. cit., pp. 30, 41, 42.

current pattern, a thrust stage with a rear room for changing and entrances, and two stories for multi-level scenes. The commoners stood in the pit, and the wealthy sat in surrounding galleries. The stage was often raised, with a trapped floor, and roofed over. The architectural elements created a permanent set that may have been elaborated with banners and decoration. Restoration stages, although influenced by the Italian proscenium, retained the character of the thrust with immense forestages until profit motive required replacing the forestage with seating.⁴¹

The modern thrust stage was revived by theatre groups that wanted to perform the plays of Shakespeare on the stage for which they were written. Tyrone Guthrie's stages at Stratford, Ontario, and Minneapolis, Minnesota, are successful examples. Stratford's Festival Theatre was primarily for Shakespeare; the Guthrie in Minneapolis is a classical repertory theatre.

The thrust has developed its own conventions. It is most suitable for plays with an "urgent" need to "struggle out of the proscenium."⁴² The actor becomes fully three-dimensional and may address the audience directly, especially in Shakespearean productions. Greek tragedies, Shakespeare, and others that call for spectacular productions and grandiose techniques do well on large thrust stages. Smaller

⁴¹Ibid., pp. 16-30, 50-52. ⁴²Ibid., p. 13.

thrust theatres suit more intimate drama; organic projection is the acting style. Modern playwrights T.S. Elliot, Christopher Fry, and Jean Anouilh write plays that need to be performed on a thrust. However, naturalistic drama and pictorial scenery are not considered thrust material. Scenery should be three-dimensional; permanent architectural sets are often used.⁴³

Variations on the thrust include size and geometry differences or differences in the extent of the audience wrap. However, a proscenium with an extended forestage is not considered a true thrust unless the audience is on all three sides.⁴⁴ Another variation is the space stage, which pulls the thrust away from the back wall of the theatre, giving an unlocalized feel.⁴⁵

In adapting an existing building for a thrust stage, a wide building that allows actor access from all sides is ideal. A building with lower ceilings, columns, or irregularities can be acceptable for a thrust stage.⁴⁶

Problems with the thrust stage include limitations as to the possible scenery, location of entrances and exits, and the acting style required. All of these problems are also potential assets. Jo Mielziner calls the thrust,

⁴³Joseph, op. cit., p. 39. ⁴⁴Southern, op. cit., p.41.

⁴⁵Courtney, op. cit., p. 13. ⁴⁶Elder, op. cit., p. 6.

"exciting for actors and actresses...with a visual freshness, simplicity and vigor."⁴⁷

An example of a successful thrust theatre is Tyrone Guthrie's theatre at Minneapolis, Minnesota. Guthrie co-designed the theatre with Tanya Moisewitsch, who also designed with him the Festival Theatre at Stratford, Ontario. Although the conditions are different than Manhattan's, the city of Minneapolis being much larger and known as a cultural center for the Midwest, there are similarities. By virtue of the fact that Minneapolis is in Midwestern America and is geographically isolated from other major cities, the people of Minneapolis were not accustomed to theatre. Guthrie's decision would hold true for a Kansas theatre: "One must not assume that because they haven't had a theatre, they are not capable of the best."⁴⁸ The Guthrie group makes no concessions as to quality; theirs is a classical program loosely interpreted to include recent works by American playwrights that are contenders for classic status. The Guthrie Theatre does not perform Restoration Comedies, not just because they were written for the proscenium, but because the Englishness and removal from reality makes them inappropriate for Midwestern audiences. Guthrie feels Ibsen (typical of late Nineteenth Century naturalistic drama that is usually con-

⁴⁷Mielziner, op. cit., p. 79.

⁴⁸Tyrone Guthrie in Actor and Architect, Stephen Joseph, ed., University of Toronto Press, 1965, p. 35.

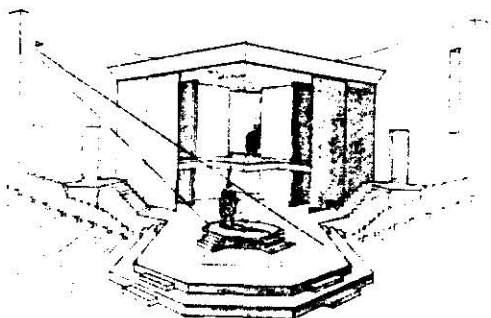
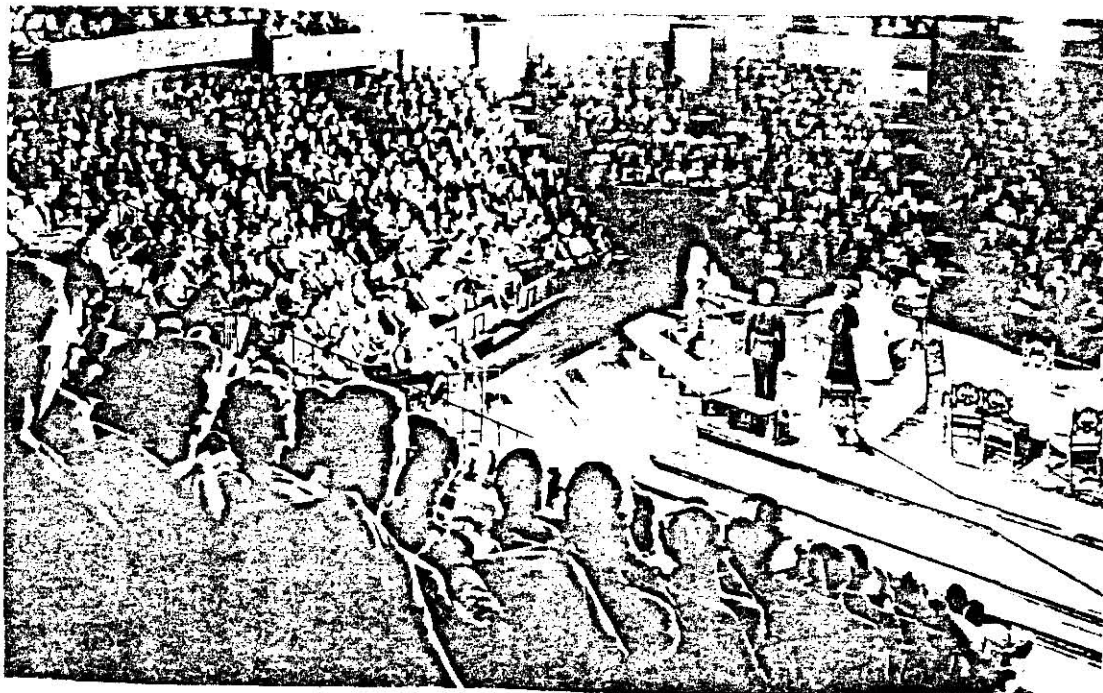
sidered proscenium material) can and should be done on an open stage.⁴⁹

The Guthrie Theatre seats 1000 people in a semi-circle around the stage. The rest of the circle is the backstage area. The rectangular back wall is corrugated with openable doors and windows. The doors and windows can be part of a set, as entrances and exits, or the wall can be opened so that a wagon can move an entire scene into place. The theatre is large, because the potential audience is large, but the form allows intimacy. "The Guthrie" has become synonymous with quality theatre in the Midwest.⁵⁰

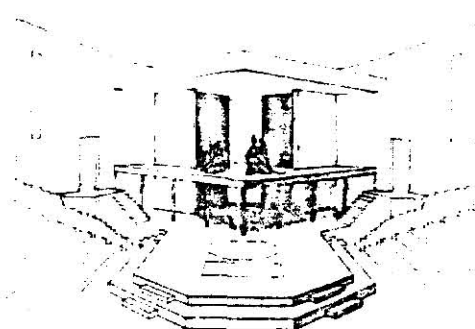
Manhattan Civic Theatre's classic of each season would do well on a thrust, as would some of the more serious dramas, such as the 1981 production of Desire Under the Elms by Eugene O'Neill. However, the other plays performed by the Civic Theatre, although workable on a thrust, would be better on other stage forms. The thrust has the advantage of being so different from the proscenium that it would not be confused with the proscenium; techniques would of necessity be unique. The thrust allows more audience/actor proximity and is stimulating, exciting, vital and creative. Because of its suitability for existing buildings, minimal set needs and technical simplicity, the thrust is more cost effective

⁴⁹Ibid., pp. 34-36, 39-40. ⁵⁰Ibid., p. 44.

See also Illustration 2, p. 35.



Elevators Partially Raised



Wagons Fully Extended

Illustration 2
Minneapolis, Minnesota
The Tyrone Guthrie Theatre

than the proscenium or end stage alternatives.

The Arena

The arena is the most radically different from the enclosed stage. It is called arena, center stage, or theatre-in-the-round because the audience completely surrounds the stage. It is the most open of open stages and the most intimate, as the greatest number of people can be seated within a few feet of the stage.

The arena is also the most ancient of theatre forms. Wherever crowds gather, the natural form is circular. The hunting and fertility rites of primitive cultures took place in a circle around dancers and story-tellers. Early Greek theatre was a circle around the dancer's area (orchestra). In Medieval townhalls and guild hall performances, actors were sometimes in the center of the space, but the only circular performances since have been circuses. Modern revivals of the arena occurred in the early Twentieth Century with Russian attempts at realism in theatre. The United States revival came in 1914 due to the demand of playwrights such as Eugene O'Neill and Elmer Rice for theatre forms more suited to their work.⁵¹

The arena stage is usually flat, with actor access provided on four sides. The stage is flat so that access is easier and so that one actor is less likely to "cover" another

⁵¹ Mielziner, op. cit., p. 65.

blocking him from audience view. The audience is on steeply raked seating. Scenic investiture consists of three-dimensional furnishings or set pieces and properities and is limited to what is below audience eye level, above audience eye level, or what the audience can see through. Symbolic effects are often suggested with lighting and set pieces. Unit sets are convenient, but not necessary. Scenery is expressive rather than realistic, and great attention is paid to the detail of costumes and properties.⁵²

A variation on the complete arena is a transverse stage. The transverse stage is a split stage with audience on two sides of a central runway/acting area. The transverse stage may have been used in some guild halls in Elizabethan England. The actor must have access from each end of the transverse stage; it is a good stage for a rectangular space.⁵³

A square building is ideal for adaption to arena theatre. An arena is a good stage configuration to use when the building has support columns. Actor access from four sides must be considered.⁵⁴

The biggest advantage of the arena is that it is essentially possible in any large room; it is also the most inexpensive to build and on which to produce plays. The

⁵²Corry, op. cit., p. 12. ⁵³Joseph, op. cit., p. 28.

⁵⁴Elder, op. cit., p. 6.

arena is about the simplest and most complete theatre one can devise and is a:

...constant taunt to those well-meaning cultural organizations that say they want a theatre but can't afford one. Nonsense! What they mean is they can't afford a marble monument!⁵⁵

Intimacy is another argument in favor of the arena, with a possibility of seating 1000 people within ten rows of the stage.

Acoustics become a problem in a large arena theatre. The actor's voice must project backwards to the half of the audience he or she is not facing. The fact that half of the audience is always to the actor's back prompted Burris-Meyer to complain that one only sees half the show. The viewpoints of the various audience members are maximally different; everyone sees a different aspect of the show. Sightlines become more of a problem, as does lighting, because of the 360 degree nature of the seating. The actors must use different attacks on performance and movement than they would on another kind of stage.⁵⁶

The plays of Sophocles, Euripedes, Shakespeare, Molier, and Sheridan work well in arena. Modern playwrights, intimate dramas, or comedies are also good. Some

⁵⁵Joseph, op. cit., p. 22.

⁵⁶Burris-Meyer and Cole, op. cit., pp. 129,130.

drawing room comedies which need a box set and do not benefit from dimension are not arena material; they require the illusion of the proscenium.⁵⁷

Jo Mielziner speaks in favor of the arena: "The fact that presentation style stresses imagination and simplicity is a strong argument."⁵⁸

The simplicity of arena stages make them work well in "found" spaces. An example of such an adaptation is the Longstreet Theatre, a classic revival former college chapel in Columbia, South Carolina. George Izenour was the theatrical consultant on the 350 seat theatre. In order to provide the appropriate technical spaces, stage operations, storage, and dressing rooms with adequate public lobbies, another existing building was linked to the rear of the theatre. The group does only intimate dramas, so the considerations of a fully rigged proscenium or a thrust/arena adaptable stage were rejected in light of the building's exterior configuration and small size. The exterior was preserved and the interior gutted to accommodate an arena with a fully trapped stage floor. To solve the acoustical problems of an arena, surfaces were planned to reflect sound back to the opposite side of the audience. The ceiling is a convex plaster surface which also reflects sound into the audience. Lighting problems are solved with a wire mesh

⁵⁷Waller, op. cit., p.111.

⁵⁸Mielziner, op. cit., p.75.

grid that doubles as a catwalk and light suspension device.⁵⁹

Manhattan Civic Theatre's productions could work very well in arena. In fact, the arena stage would meet all the goals except variety. In the range of plays and range of people directing, there will be the need for stage forms other than the arena. The arena appears to be the most limiting stage form for a group that performs a variety of plays as it is the most limiting scenically and demands intimacy, even when it may be desirable to achieve some distance.

⁵⁹Mildred F. Schmertz, "Building Types Study #529: Doing Less and Achieving More: Four Modest and Flexible Designs for the Performing Arts," Architectural Record, Vol. 65, No. 4 (April, 1979), 125-140.

See also Illustration 3, p. 41.

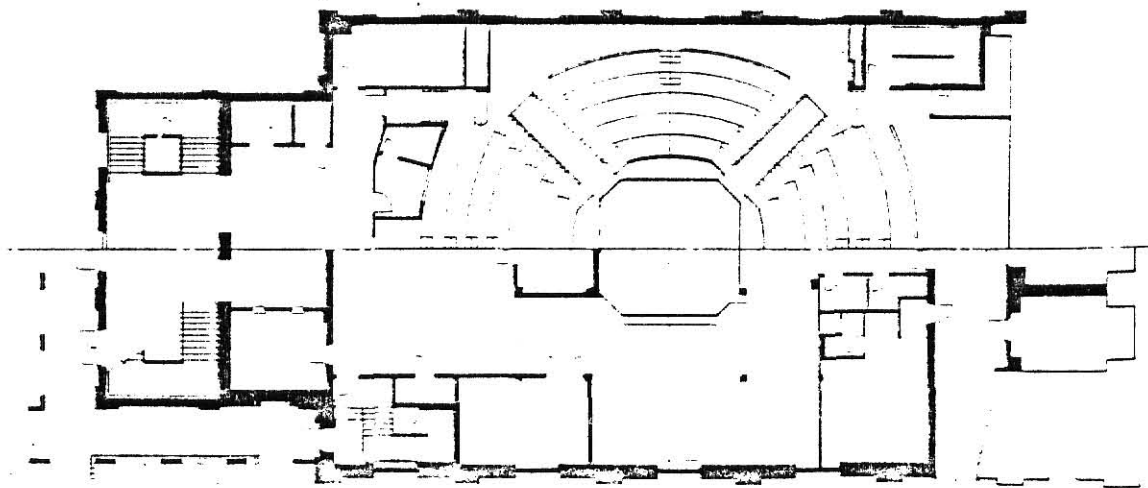
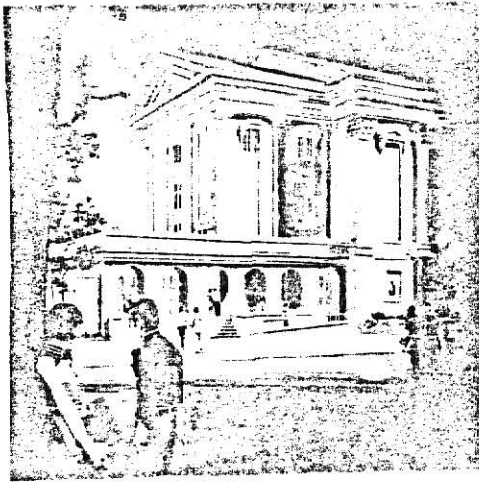


Illustration 3
Longstreet Theatre
Arena by George Izenour

Chapter 6

MULTI-FORM STAGES

Each of the open stages has roots in theatre history; each has limits; and each has attractiveness, especially when suited for a particular kind of play. By the 1970's, the most questioned issues of open stages had been resolved. Acting techniques and symbolic and three-dimensional scenery have generally become acceptable as conventions although the proscenium is still the traditional theatre form. It is no longer radical to present a play in the round or on a thrust stage. Out of the experimentation with alternate stage configurations came a desire not to be tied to any one stage form. Richard Leacroft in his 1949 book on civic theatres foresaw the issue:⁶⁰

Since these plays were designed to suit the requirements of the particular form of theatre then in use, it follows that the Civic Theatre must make allowance for this fact...every effort must be made to arrange the necessary elements in such a way that as many different theatre forms as possible may occur in one building.

Leacroft's suggestion, at a time when anything other than proscenium was unheard of, was to extend the stage with a removeable forestage. This solution, today commonplace, may be called flexible, but it really only adds a questionable

⁶⁰Leacroft, op. cit., p. 39.

thrust to the outdated proscenium. Any form which adds alterations to a proscenium is not a multi-form stage. A true multi-form stage provides more than flexibility, but is a form of open stage in its own right. Horace Robinson's definition of multi-form theatre is one that is totally adaptable in that no particular space is allowed for the audience functions and the actor functions: "chairs move, platforming moves, lights move, entrances and exits move, but support areas remain the same."⁶¹ The solution to the problem of different requirements for each type of space meet the demands of a group that wants flexibility, not the demands of varied groups who each want a particular kind of theatre and must use the same stage. An adaptable theatre can be truly multi-form or "it is one shape no matter how much it is adapted."⁶²

There is very little precedent in history for adaptable theatres. In Elizabethan times the performance was usually adapted to the stage, performing groups being travelling companies. The great hall of a country house, however, had to be changed to suit a play or to suit a masque. The key to the need for change was that a masque required changeable scenery; a play did not. Today a major difficulty in adaptable theatres is providing both

⁶¹Robinson, op. cit., p. 39.

⁶²Courtney, op. cit., p. 111.

for shows that require changeable scenery and for shows that do not. The difficult task is designing for both proscenium and open stage plays, rather than designing for variations of open stage plays.⁶³

A distinction must be made between multi-form and multi-purpose theatres. Multi-purpose stages have a long history of being created to fill a variety of needs, not all of which are performance-related. The most infamous result is an inadequate proscenium stage in a flat-floored gymnasium, truly an example of the "multi-purpose is no purpose" statement. Multi-form theatres, however, are entirely designed to suit theatrical performances; other uses being incidental.

The call for total adaptability strikes a nerve in veteran theatre designers. The people who want multi-form theatres are often dismissed as ambitious eccentrics; as not knowing what they want; as being insecure about what stage form is fashionable; or as being unable to commit themselves to exactly the kind of plays that will be done. Percy Corry calls them revolutionary for demanding wide open spaces with acting areas and seating areas that can be pushed around at the whim of the director:

⁶³Richard Southern in Adaptable Theatres, Stephen Joseph, ed., op. cit., p.14.

These advocates no doubt have reasons why they should have their fun, but as far as one can judge, at the present, any such demand has little relevance or practicality in the context of...community theatre projects.⁶⁴

According to Stephen Joseph, "Theatre is not an exercise in ingenuity; it is a place for actors and audiences, and ingenuity is only appropriate in their service."⁶⁵

Adaptable theatres are considered ideal for the educational theatre, however. It is assumed that the study of theatre includes producing a sample of plays from every era and for every type of stage configuration. Both Courtney and Robinson consider multi-form theatre most desirable for teaching studio purposes.

Other groups that are considered ideal candidates for multi-form theatres are experimental groups with a sophisticated and theatre-wise audience or professional groups with a fixed policy, but with the problem of performing classics on the stage for which they were written.⁶⁶

The issue of cost for a multi-form theatre also relates to the kind of group that requires multiple stage forms. Two kinds of adaptable theatres have been created to meet the varying needs of groups. Professional companies that must pay labor costs require mechanically adaptable

⁶⁴Corry, op. cit., p. 2.

⁶⁵Joseph, op. cit., p. 94. ⁶⁶Southern, op. cit., p.57.

theatres. If a professional group can afford to build a theatre that meets all the requirements of one particular form, that is mechanically adaptable to another complete form, the cost often becomes so high as to make it feasible to build two separate theatres that share support spaces.⁶⁷ If, on the other hand, the conditions of the group are different; if the ideal theatre is out of the group's cost range, and they are forced to work within an existing building, then the critics change their attitudes.

Says Eldon Elder:

Flexibility in size and shape can be cheaper where time and labor are cheap. This is a complete reverse philosophy to the thinking with regard to flexible stage space where elaborate expensive machinery is devised because time and manpower mean money.⁶⁸

When the alternative is the kind of stage many communities find themselves with, having inadequate prosceniums facing flat floors, and improvement might be to cut off the stage entirely and create a modular open stage.⁶⁹

Simplicity is the key to success in a multi-form stage for community, experimental, or educational groups. Stephen Joseph, a negative critic otherwise, feels that a simple modular system has merit. "The most satisfactory is the most modest. A 30'x40' theatre or any large room can be

⁶⁷Mielziner, op. cit., pp. 81-85.

⁶⁸Elder, op. cit., p.83. ⁶⁹Joseph, op. cit., p. 95.

adapted with portable rostrums."⁷⁰

There are, in addition, experts who feel it is a mistake not to design for adaptability. Adrian Waller and Walden Boyle feel that adjusting to suit many kinds of plays is necessary and can be done by designing easily moveable platforms and performing in large open rooms.

A final and important consideration when deciding on an adaptable stage form is to decide if the various forms will be used. A multi-form stage:

...requires a high degree of imagination to secure its maximum benefits. Its unconventional and flexible nature must be exploited if it is to be effective. If one is tempted to use the same form repeatedly, it is no longer a flexible theatre.⁷¹

A modular theatre was designed for California Institute of the Arts that represents the extent that electromechanical techniques can be used to create a free-form theatre. The totally modular theatre has floor, walls, and ceilings gridded into four-foot squares. Each floor grid is on a hydraulic lift which can be raised or lowered to create levels necessary for stage/audience relationships in each level. Access problems are solved with wall panels that can be opened to create entries at any location around the room. Doors in the permanent wall behind the wall modules are eight feet apart. Openings are made at floor or balcony levels for audience or actor entry. The ceiling grid includes

⁷⁰Ibid., p. 94.

⁷¹Robinson, op. cit., p. 111.

concentric catwalks which allow lighting from any point in the theatre. Mechanical innovations include the lighting system and a fly system which were specifically designed for the theatre. The California Institute theatre is a teaching station; Jules Fisher was the theatrical consultant.⁷²

Another theatre that has the same resulting adaptability without the expensive mechanical equipment is also an educational theatre. Originally designed by architect Peter Blake and stage designer David Hays for the Ideal Theatre Competition in 1961, a modification of the design was built at Vanderbilt University in the old Neely Theatre Building. The original design was a 299 seat theatre based on the dimensions of a New York City lot. The module is again a square. The vertical space is a system of related half-levels, each six feet above the one below it and open to the entire acting/audience area. The levels can be used for seating and acting, can serve as lighting or projection galleries, or can fulfill several functions simultaneously. To vary height, intermediate platforms can be used and/or the levels can be bridged by moveable stairs. Seating modules are manually operated and scenery is environmental rather than added trappings. The goal was for sim-

⁷²"Here is a Practical and Economical Teaching Theatre Based on Four Fully Integrated Systems," Architectural Record, Vol. 153, No. 4 (April, 1973), 137-140. See also Burris-Meyer and Cole, op. cit., pp. 436, 437. See also Illustration 4, p. 49.

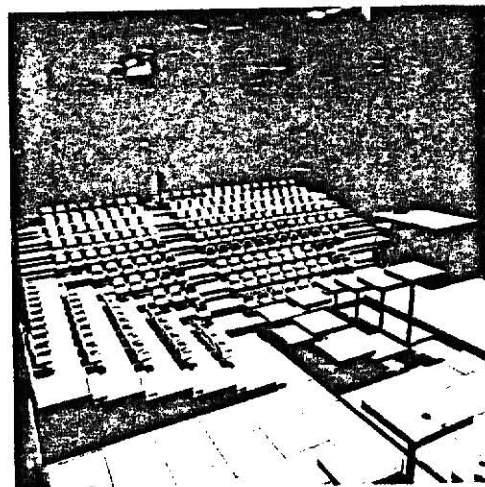
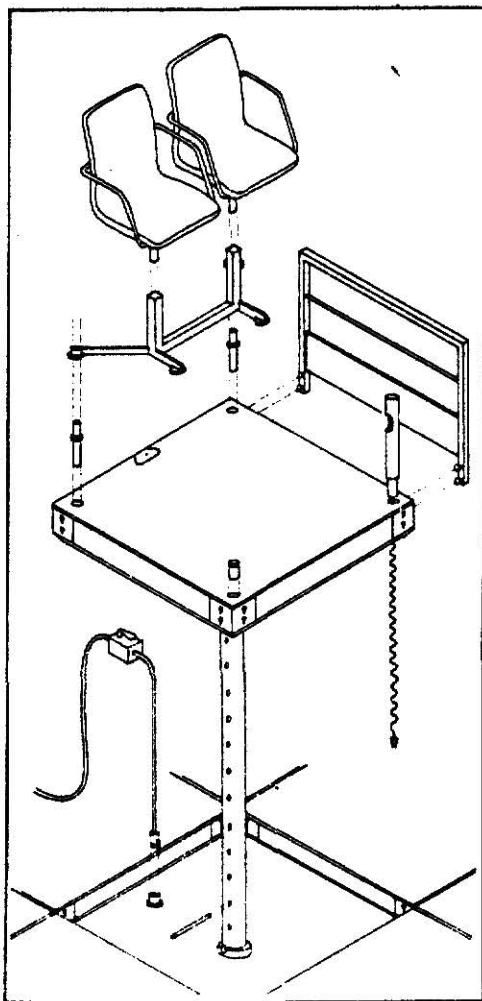
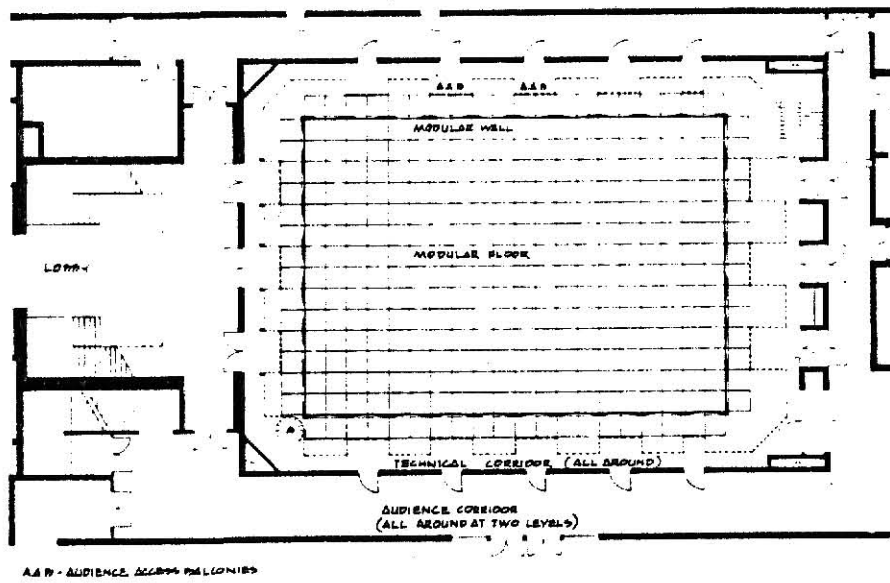


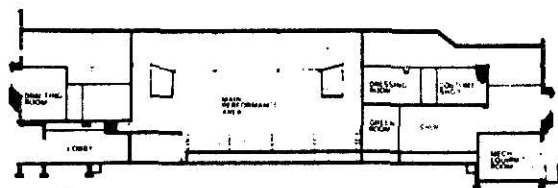
Illustration 4
California Institute of the Arts
Modular Theatre

plicity, low cost, and variety in audience-performance relationships.⁷³

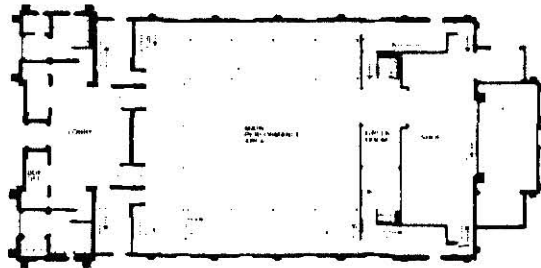
The stage at Topeka Civic Theatre in Topeka, Kansas, is referred to by the technical director as half proscenium and half thrust. Since the stage can also be arranged for arena productions, and there is not even a false proscenium, the theatre is actually an adaptable stage form. The Topeka Civic Theatre is a dinner theatre in the capital city of Kansas and is quite successful. Like Manhattan, Topeka has a university, but the town is also several times larger and is a center for professions such as law, medicine, and mental health. The presence of the state governing bodies also contributes to the more professional, arts-supportive atmosphere of Topeka. The town is also able to support a ballet company and another dinner theatre as well as the Civic Theatre.

Like Manhattan Civic Theatre, Topeka Civic Theatre depends on ticket sales for funding, supplemented by donations and specific fund-raising activities. Topeka Civic Theatre produces nine shows in year-round productions that include comedy, drama, and perhaps a classical piece in an effort to provide a well-rounded season. Topeka

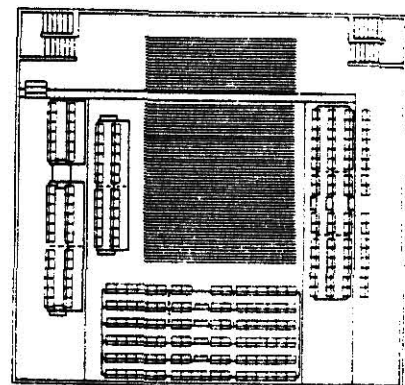
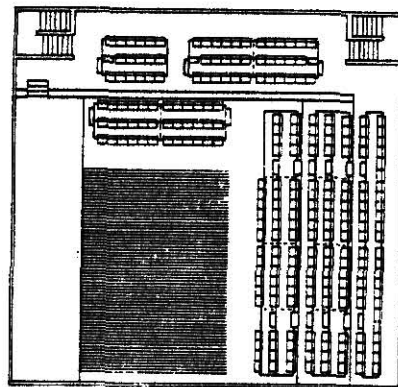
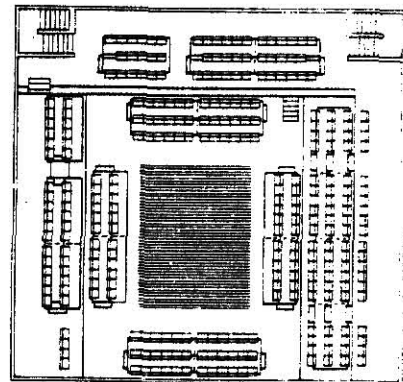
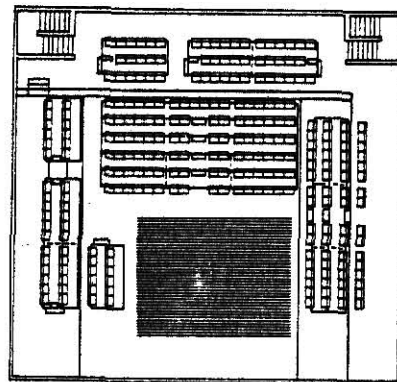
⁷³Peter Larkin, ed., The Ideal Theatre: Eight Concepts, New York: American Federation of Arts, 1962, pp.55,57. See also Stanley Ambercrombie, "A Teaching Theatre," Contract Interiors, Vol. 89, No. 2 (September, 1978) 98-101. See also Illustration 5, p.51.



Section



Plan



Four of many possible seating arrangements

Illustration 5
 Vanderbilt University's Modular Theatre
 Designers: Peter Blake and David Hays

Civic Theatre cooperates with other groups, sharing and loaning equipment, and allowing groups to use the stage for such events as jazz workshops, children's seminars, and guest performances. If there is one important goal for Topeka Civic Theatre, it is to improve the state of the theatrical arts in Topeka. The group has been successful enough to win awards and is able to pay a full time artistic director, technical director, and managing director as well as secretaries, box office personnel, and a custodian.⁷⁵

Located in a warehouse in a hard-to-find location on the riverfront, Topeka Civic Theatre has turned the site into an asset with advertising; signage helps locate it. The group worked with a member who was also an architect to adapt the warehouse. Much of the work was done in phases. The stage itself is an open stage with a thrust. By selective rearrangement of tables, the audience can surround the stage in a more complete semi-circle or total arena. The stage/audience relationship is merely a room with risers for tables and chairs and no level change for the stage. Because the acting area is directly over the basement where sets are built, an area of the floor has been made removeable so that direct access to the basement would allow for a trapped floor or a direct way to move set pieces to the stage.

⁷⁵Personal conversation with Paul Naylor, technical director, Topeka Civic Theatre, February, 1982. See also Appendix, this report, pp. 142-144.

The gap in the floor has also been the opening for an orchestra pit, the orchestra being on scaffolding on the basement floor below. The technical director is satisfied with the stage, except that he would like ten more feet of depth behind the acting area. The back wall of the building and the back wall of the stage are one. There is very little wing space, really no more than turn-around space. Access to the dressing room is via stairs as the dressing room and green room are on another level. The size limits of the theatre are due to the size limits of the building's existing rooms. There are ample support spaces with space in the basement for costumes and for scenery building and for electrical and property storage. The upstairs greenroom, offices, and dressing rooms are spacious with natural light and comfortable furnishings. There is also lobby space, a coffee shop, and a bar that is an added-on box car. Another added-on box car contains the dinner buffet, storage, and clean-up facilities that can be acoustically and visually separated from the audience area by closing the connecting doors. The overall appearance of Topeka Civic Theatre is one of being designed piecemeal, with some areas very finished-looking and some areas very rough, organic, and handmade, with exposed brickwork and warm colors. In spite of less than adequate stage facilities, Topeka Civic Theatre is vibrant, vital, and a critical and popular success. The adaptability of its stage may be a contributing factor in this success. It is certainly not considered by the

director to be an inhibition.⁷⁶

Manhattan Civic Theatre could learn from Topeka's use of a found space, exploiting its limitations, that good theatre can take place in almost any location. If the key to a successful multi-form stage is simplicity, with appropriate uses being for groups that perform a range of plays and have more time and volunteer labor available than money, then MCT would seem to be an ideal candidate for a multi-form stage. The multi-form theatre seems to meet the objectives of participation, interaction, and creative expression by encouraging innovation and focusing on the actor/audience relationship. Other objectives can also be met by multi-form theatre. The final decision for MCT, however, depends on factors of cost, available locations, and the way the audience-performer dichotomy is solved.

⁷⁶Personal conversation with Paul Naylor, technical director, Topeka Civic Theatre, February, 1982. See also Appendix, this report, pp. 142-144.

Chapter 7

CONCLUSION

According to the definition of live theatre, both audience and actor are essential elements. The relationship between the two, a function of the design, should provide controlled contact and promote interaction between audience and actor. There can be no emphasis on one over the other; all functions of the theatre must support the point of actor/audience contact. Thus Manhattan Civic Theatre, which produces a variety of plays, should have a stage form that promotes interaction and allows the other objectives of the organization to be met.

Each of the open stages addresses some of the needs of Manhattan Civic Theatre, MCT's variety of productions being a key factor. A musical requires a large playing space and more two-dimensional scenery; an end stage would be best. A mystery or light modern comedy would benefit from the closeness of an arena. A drama may work well on an arena or may require a set that would allow more majesty or pageantry, with the thrust's available rear wall. The yearly classic, especially if Shakespeare, would demand a thrust. The apparent solution is flexibility in stage form. Flexibility is not new to MCT. The present basement theatre requires a flexible stage to compensate for its inadequacies.

Plays have been produced on a corner end stage with the audience on two sides and on a three-sided thrust. End stages with audience on one side only have been used in three locations in the room for small productions. The flexible staging may be responsible for the creativity of many Manhattan Civic Theatre productions. It will be important to retain the uniqueness that Manhattan Civic Theatre has over other community theatres, a creative willingness to experiment.

If an adaptable or multi-form stage is chosen, the audience-oriented point of view is not disregarded. Every effort must be made to accommodate the aesthetic and comfort needs of the audience. A desire for a finished visual appearance suggests care in selecting colors and finishes. Comfort needs can be met with well-chosen seating, attention to sightlines and acoustics, and well-planned lighting, all factors that aid the performance as well.

Dinner theatre is a desire of the group that adds a complicating factor to the design. The serving of dinner creates needs that are separate from and not always compatible with theatre. Also, maintenance concerns suggest that tables not be moved from performance-to-performance.

Two options are available to Manhattan Civic Theatre, to build a new building or to adapt an existing building. Cost becomes a determining factor when decisions are to be made. Cost factors limit building options to prefabricated steel structures and available building sites are limited. An existing building allows the option of moving in and

using the space with minimal changes; phasing construction would spread expenses over a period of time. If an existing building is chosen, the size and configuration of the space will help determine the stage form.

Without choosing a site, but considering the arguments presented in this paper in light of the special conditions of Manhattan Civic Theatre, an ideal theatre would be one with as much flexibility as possible in as simple a form as possible. A final location may be a large room, limited in size. The suggestion for such a condition would be to forgo dinner theatre. The stage and audience should consist of interchangeable modular platforms and risers and be completely flexible.

If the location is large enough and dinner theatre becomes feasible, then a compromise between fixed and flexible stage/seating is suggested. Part of the audience area would be fixed and permanently set for dinner. The first few rows of seating would be regular, non-dinner seating and would be flexible so that there could be changes in stage configuration without disturbing the dinner seating. This is the solution suggested in Part 3 of this report, which presents a design for Manhattan Civic Theatre in the Wareham Ballroom, a site conducive to flexible staging with a portion permanently fixed due to the long rectangular configuration of the building.

Part 2

An Architectural Program for Manhattan Civic Theatre

Chapter 1

INTRODUCTION

Manhattan Civic Theatre is a community organization that has existed sporadically since 1954. MCT has been continuously plagued by a lack of a permanent facility. The most recent location, the basement of City Hall, in Manhattan, is inadequate in that it is small, low-ceilinged, and has structural columns that limit the size of stage and seating areas by blocking sightlines. The basement is also virtually invisible to the public. The lease on the basement theatre is temporary; MCT is searching for a permanent location.

The organization that makes up the permanent core of Manhattan Civic Theatre is the 17-member board of directors. At the annual meeting, dues-paying members of MCT elect the board of directors. Other involvement in the theatre varies from production to production and includes a group of highly motivated "regulars" and a fluid group of actors and technicians from Manhattan, Fort Riley, and Kansas State University. All work done for Manhattan Civic Theatre is volunteer.

At the September, 1981, board meeting, I requested and was granted the board's cooperation in writing an architectural program for Manhattan Civic Theatre. The method chosen, Problem Seeking, by William Peña, involves users as decisionmakers. The board realizes a need to clarify and

reach a consensus on goals for the theatre before design decisions are made. The board and the active members of MCT includes people with expertise in various areas of theatrical production.

In October, 1982, I sent a questionnaire to each board member and to a random selection of active MCT members involved. The questions were open-ended, intended to elicit responses that could be used to form goals for MCT. Out of 40 questionnaires, 24 were returned. From a consensus of replies, I listed goals, using Peña's "key words" as a guide. Each person who responded to the questionnaire was sent the list of goals and given the option to agree or disagree. On January 30, 1982, seven people took part in a work session to evaluate analysis cards and brown sheets and to discuss issues relating to the program. Four board members and three non-board members were present.

The program consists of information divided into the five steps of the problem seeking method. Goals, facts, concepts, and needs are subtitles under the considerations of function, form, economy, and time. The problem statement is a distillation of the information into specific considerations for the project. At the time of writing the program, the group was considering the Wareham Ballroom, annex to the Wareham Hotel in Manhattan, as a possible location for the theatre. The Wareham Ballroom as a potential site was evaluated as a part of the program.

Chapter 2

FUNCTION PEOPLE, ACTIVITIES, RELATIONSHIPS

GOALS

Mission Statement

Purpose. Manhattan Civic Theatre is a community organization that provides theatre both as a vehicle of involvement for local people and as a source of live entertainment for local people.

Reasons. Manhattan Civic Theatre needs a new facility because the present one is inadequate and temporary. The new facility should:

- (1) provide adequate space for performance and production needs;
- (2) allow for larger audience groups;
- (3) be visible to the community;
- (4) be accessible to all theatre-goers;
- (5) have a pleasant, comfortable, and attractive physical appearance and atmosphere; and
- (6) be a permanent facility for MCT.

Maximum Number

The facility should be large enough to hold a full house, cast, and crew for a large musical. At times a per-

formance is not taking place, the facility should accommodate rehearsal, set construction, costume fittings, and possible meetings or auditions and rehearsals for a different play than the one in progress.

Interaction

Meeting and interacting with other people is a major reason people become involved in MCT.

Being part of the audience is a communal experience. There is a contagion of feeling that adds to enjoyment and frees one to respond to the performer.¹

Goal: to promote group involvement through chance and planned encounters.

Individual Identity

While group functioning is essential to theatre production, individual creativity is a high priority as a production depends on the varied talents of a number of individuals. People become involved in community theatre to use their talents, increase their skills, and express their own art form.

Goal: Allow for individual identity with the functioning of the group.

Privacy

During the running of a play, visual and acoustical

¹Albert Mehrabian, Public Places and Private Spaces, New York: Basic Books, 1976, p. 221.

privacy is important. Actors and technical people should not be seen and heard by the audience while they are not on stage.

Human Values

Theatre as an art form promotes human creativity and human interaction.

MCT specifically promotes the human values of group cooperation, personal enrichment, recreational entertainment, and cultural and creative experience.

Hierarchy of Values

- (1) Community and group activity for a range of people
- (2) entertainment/social activity
- (3) personal creative enrichment
- (4) promotion of the art form
- (5) community education

Hierarchy of Activities

(1) The primary activity is producing high quality theatre. All other activities are subordinate to the primary one:

(2) providing social life and entertainment for the actors and the audience;

(3) providing a location for other performance-related activities, such as readings, workshops, children's theatre, bringing in other groups, concerts, and dance recitals;

- (4) providing a location for visual arts exhibits; and
- (5) providing a place for meetings and special events.

Relationships

MCT must balance the needs of the audience and the technical and creative needs of the production.

MCT must balance the needs of an individual and the functional needs of a group organization.

MCT must balance the needs of people with varied likes and taste as to the kind of theatre produced.

Types of Security

The safety of people using the building must be considered.

The equipment used in productions is expensive and provision must be made for its security.

Progression

Traffic flow is of primary concern in accommodating large numbers of people using the building at the same time: entering, purchasing tickets, being seated, intermission activities, and leaving after the performance.

Bringing production equipment to the theatre requires a smooth flow from loading area to off-stage storage to the acting area.

Segregation of People, Vehicles, and Things

The flow from the parking area to the theatre should provide separate lanes for audience access and cast/crew/

equipment access.

Functional Efficiency

The planning of all aspects of the facility should ultimately allow smooth running of a production from auditions to striking a set after a performance.

Transportation

Because the public access is a high priority, parking should be available and convenient.

FACTS

Statistical Data

The theatre's organization consists of a 17-member board of directors who are elected for one, two and three year terms. Their function is to set policy, make decisions on a slate of plays for a season and a director for each play, aid the production staff, and serve on committees. There are also members who join by paying dues and who elect the board of directors at an annual meeting. Members also serve on committees. Other involvement varies from production to production and is open to anyone.

The production schedule includes five "main bill" plays annually; one drama, one mystery, one comedy, one musical, and one classical production. Dates in the season are left open for "Etc." productions, which are usually short plays, open to individual(s) who want to present. Manhattan Civic Theatre also brings in a chil-

ren's theatre production or produces one as an Etc. production. Summer theatre is unscheduled, but can be done by interested people.

The average house in the 1981-1982 season was 40% of capacity. The annual budget for the theatre is approximately 15,000 dollars. 61% of this income is from box office ticket sales, 13% is donations and the rest is advertising in the playbill and miscellaneous sources.

Existing Area Parameters

The theatre in the basement of City Auditorium includes:

- (1) an acting area, confined generally to an area 14.5 X 17 feet that is flexible;
- (2) an off stage space that varies depending on the stage configuration, approximately 120 square feet;
- (3) a flexible seating area that seats from 68 to 98 people;
- (4) restrooms upstairs;
- (5) a combination dressing space/greenroom that is approximately 225 square feet;
- (6) technical control space, also used for storage of lighting and electrical supplies;
- (7) a concessions area of approximately 240 square feet that is supplemented by the building lobby upstairs;
- (8) an enclosed box office upstairs that can be used when the theatre is locked; and
- (9) a shop used mostly for storage of paint and tools.

Sets are built on stage. Large set building supplies and properties are stored elsewhere. Costumes are stored elsewhere. Rehearsals on stage have priority over set building. Rehearsal when another show is in production take place elsewhere.

General Activities, their Descriptions, and Space Adequacies²

Public spaces include:

(1) Entry/approach area, which should include a drop-off space, a covered entry and/or foyer or vestibule. A foyer should include one square foot of space per person to be accommodated.

(2) Lobby, which provides access to the ticket booth, cloakroom, toilets, food service areas, lounge, the auditorium, and any stairways or ramps leading to other parts of the building to be used by the public. 1.4 square feet per person to be accommodated is required.

(3) Lounge, which provides an area of waiting and relaxation before a show and during intermission. Eight square feet of space per person to be accommodated is required. Two square feet per person should be free space.

²Harold Burris-Meyer and Edward C. Cole, Theatres and Auditoriums, 3rd. ed., New York: Reinhold Publishing Corporation, 1972, pp.38-63. See also Eldon Elder, Will it Make a Theatre?, New York: Drama Book Publishers, 1979, pp. 84-120. See also Edward Mills, Planning Buildings for Administration, Entertainment and Recreation, New York: Robert E. Keieger Publishing Company, 1976, pp. 70-74.

(4) Box office, which is within or adjacent to the lobby, lounge, or foyer areas. A space to take reservations and sell tickets, the box office can be enclosed or an open counter. If closed, 30 square feet per person working in the box office is required. 75 square feet accommodate three windows. If open, the box office will require an additional 25 square feet of lobby area. There should be two windows: one to handle advance sales and telephone reservations and one to handle current sales.

(5) Coat check, a place to hang coats and leave hats that requires one hanger per seat in the auditorium, shelves for hats, and bins for boots.

(6) Bar or coffee bar, a space for people to sit or stand outside circulation routes to have refreshments during intermission. The bar requires four square feet per person or enough space to serve half the audience in 15 minutes.

(7) Restrooms, one facility for men and one for women, with facilities for the handicapped in each. Assume 75% of the audience is male and 75% of the audience is female. One toilet and one sink are required for 100 females; one toilet and one sink are required for 100 males; and one urinal is required for 25 males. One handicapped facility should be provided for each sex.

(8) Public telephones

(9) Exhibition space, an area to stand and view artwork outside circulation routes. An exhibition space

requires electrical outlets for exhibition lighting.

(10) Auditorium, or audience area, the size of which is determined by the number of people to be accommodated. The decision should consider factors of safety, comfort, the ability to see and hear, and the level of intimacy desired. General requirements are 5.5 square feet of space per seat, with no one's angle of vision more than 30 degrees, and no one more than 70 feet from the stage. Consider 23% of the space for aisles.

Performance and production spaces include:

(1) Stage, or acting area, which can be either flexible or fixed. If fixed, a decision must be made which stage configuration to use. Guidelines are given for general area requirements for stages regardless of configuration:

Minimum: 240 square feet, such as 20X12 or 15X16

Average: 525 square feet, such as 25X21 or 35X15

Maximum: 1000 square feet

Musicals: 600 square feet

Dancing: 700 square feet

(2) Orchestra pit, an area to accommodate three to 20 musicians for musicals. The pit should be below eye level of the audience, with no more than 16 feet separating the audience from the stage. The requirements are 16 square feet per instrument.

(3) Off stage area, an area directly off stage that accommodates live storage (set pieces currently being used),

actors waiting to go on stage, technicians working and waiting for scene changes, and possibly the stage manager and/or prompter. Allow 50% of the stage area for the off stage area. The off stage area should be the same level as the stage. Actors need at least 50 square square feet for waiting and for quick costume changes. Circulation space must be allowed for cross-overs.

(4) Control room, or the room from which lights, sound equipment, and possibly projection equipment are operated. The control room must house the light console operator, the sound technician, and the stage manager. A minimum of 66 square feet will accommodate three persons. The control booth is generally in the back of the auditorium above the heads of the audience and is separated acoustically from the audience.

(5) Dressing rooms, part of the backstage area, that accommodates dressing and make-up. Group dressing rooms and make-up areas are acceptable for a community theatre. A group make-up area should be at least 100 square feet. Dressing areas require 16 square feet per person with two linear feet of hanging space for clothes, two linear feet of shoe rack, 30 inches of counter, 18 inches of mirror, and one wall outlet for every two people. In addition there should be one full length mirror for every eight people, one sink for every four people, one toilet for every six people, and one shower for every six people. The dressing room should be near but not necessarily adjoining the stage. There should be a

call system connected with the off stage area and the control booth.

(6) Greenroom, the actor's social room, the place the cast is assembled and checked by the stage manager, and a place to greet friends and admirers after the performance. 300 square feet includes space for lounge furniture, food and drink facilities, ashtrays, and a telephone.

(7) Stage anteroom, an alternative to the greenroom, without the lounge function. The stage anteroom is a place to assemble the cast and wait to go onstage. 150 square feet are required for a stage anteroom.

(8) The crew needs facilities for changing, first aid, and relaxing. These can be combined with or in addition to the actor's areas.

(9) Scene shop, if the scenery is built on the premises. 220 square feet includes layout space for two 4'X8' pieces of plywood, storage of tools (36 square feet), a slop sink for cleaning brushes and paints, and a fireproof paint locker. Outlets for machinery must be included.

If the scenery is built elsewhere, provision must be made for loading and temporarily storing the scenery until it is used. A repair shop and tool storage area needs to be included. A loading door at the side or rear of the stage, eight feet wide by 12 feet high is required, also 200 square feet for storage pending set-up as high as the stage ceiling.

(10) If properties are brought in, as they generally are, a loading door must be provided as well as a temporary

storage space. Requirements include six foot wide by eight foot high loading doors plus 100 square feet of receiving space separate from the scenery storage area.

(11) Lights and technical equipment can be loaded through the same doors as properties. There should be receiving space available. Lights can be stored on tiered racks in a workroom. 150 square feet are required for a workroom, which should include a workbench and racks.

(12) Costumes can be brought in through the same loading doors as lights and properties. Passage to storage and workrooms should be at least five feet wide. A wardrobe room will enable costumes for the current production to be stored and constructed on site. The costume workroom should be 120 square feet with 12 linear feet of costume hanging space, an ironing board and iron, outlets, sewing machine, and table. If there are facilities for dying and printing, total square footage should be 500.

(13) Optional, a general workroom can be an undesignated space for emergency costuming for larger productions, unusual property construction, an auxiliary dressing room for large casts or choruses, a drama lab, and a layout space for advertising posters. 400 square feet is adequate, not to be used for storage.

Administration spaces include:

(1) Office, which should be available for the house manager and possible the board secretary. The office is a location for files and box office materials. Requirements

include a desk, chairs, telephone, and filing cabinets. 36 square feet per person should be allowed.

(2) Meeting space is needed for the board of directors and committees, which could be located in one of the other spaces such as the greenroom, lounge, or general workroom if the rooms are appropriate and time-use factors allow. Seating and refreshment facilities should be available.

Manpower Schedule

Based on a projected audience of less than 500, public spaces require the following manpower:³

(1) The box office requires two people who sell tickets on assigned shifts during box office hours. They sell tickets on the night of a production until 30 minutes after the show begins. The box office personnel often help with concession during intermission.

(2) Ushers take tickets and seat people on performance nights. The ushers can also help with concessions during intermission. Four people are required.

(3) Concessions staff can overlap with box office and usher staff. Concessions people sell beverages and light food during intermission.

(4) One person serves as house manager to see to the smooth running of the public facilities during a production, schedules staff, and manages staff.

³Burris-Meyer and Cole, op. cit. pp. 22-25.

Production people generally include the following:

(1) Actors, who audition, rehearse, and perform, range in number from two to 20 for drama, but a musical may involve up to 50 people.

(2) Technicians include: one set designer, three to 15 people to build sets, and one to eight people to set up and move scenery during a production. Other tech people are costumers: one costume designer, one to three people who build the costumes, and one to four dressers during a performance. Lighting tech people include: one lighting designer, one to three people to hang lights, and one to two people to run the light board during the production. Sound tech people include: one person to make a sound tape and one to run the tape during production. Properties are located and/or built by one to three people, and at least one person organizes and sets props for performance. One to two people design and apply make-up.

(3) Direction personnel include one director to choose the cast and crew, conduct rehearsals, instruct the cast and oversee the technical production. There is often a director for acting, a musical director, and a choreographer for a musical. In addition to the director, there may be a technical director to oversee the technical side of the production, including the tech crew; an assistant director to aid the director in rehearsals; and a stage manager to organize for and assist the director during rehearsals and to manage cast and crew backstage during a performance.

(4) A musical will involve musicians, which include one conductor and three to 20 orchestra members.

People to be Served

As MCT is open to anyone who wants to be involved, a range of people from children to older adults become active in performing and in production. Audience characteristics vary with the type of production, as plays range from children's theatre to adult drama. Thus physical characteristics of people to be served varies. Emotional characteristics also reflect a range of people involved. According to the questionnaire, people who are active in the civic theatre like group activity and social events that are part of being in a play. Manhattan Civic Theatre makes no distinction as to social class, and the range includes people who are students, unemployed, self-employed, professors, professionals such as doctors and lawyers, and homemakers. Because Manhattan is a university town, most people are college educated or in the process of becoming so. Creative ability is a strong characteristic of people who become involved as they see MCT as a way to express their creativity and sharpen their artistic skills, in ways that are not limited to acting, but include all aspects of theatre. In addition, there is a characteristic tendency of the MCT people to be unconventional in their leisure pursuits and for them to work hard at something that does not have a financial reward.

Community Characteristics

Manhattan, Kansas is a predominantly college town. Kansas State University is the single largest employer, accounting for 25% of the labor force. The largest age group is the 24-29 age range with the 15-19 and 20-24 groups also large. The median education level of Manhattan is higher than that of the rest of the state. Manhattan is also an agricultural center, serving the surrounding largely agricultural area and being the location of the state agricultural college. Manhattan is the governmental center for Riley County and the trade and service center for Fort Riley and the surrounding area. Downtown is still the center of trade and the location of most public buildings, although growth has been to the west. Revitalization of the Central Business District is in process.⁴

Potential Loss

Manhattan Civic Theatre owns equipment, tools, and materials that are stored at the theatre or in rented storage and are insured for 15,000 dollars. Equipment includes lights, lighting console, sound equipment, and miscellaneous tools. Materials kept on hand include flats, platforms, lumber, black curtains, muslin, and canvas. Furnishings include tables, chairs, and risers.

⁴V.P. Deines and Eugene McGraw, Industry-Manhattan, Manhattan: Kansas State University College of Architecture and Design, Urban Design Class Report.

Time-Distance Movement Requirements

In Manhattan, the public is generally within 20 minutes of the theatre. It typically takes from two to five minutes from parking to the entry of a theatre, three minutes from the lobby to one's seat, four minutes from the seat to the lounge during a 15-minute intermission, and six minutes to leave the theatre after a performance.⁵

An important time-distance factor for actors is from the greenroom to the stage, a few seconds if they are adjacent. Direct access is also important in loading sets and properties from off-stage to the stage, as 30 seconds to two minutes are acceptable times for scene changes.

Traffic Analysis

The public must have direct access from parking to entry. The arrangement of the lobby/lounge requires circulation paths that do not cross; the ticket lines should not interfere with direct access from lobby to auditorium or to the lounge. Coat check areas and restroom areas should not interfere with direct access from lobby to auditorium to lounge during intermission. Viewing art exhibits or getting refreshments should not interfere with circulation paths. The lobby should allow direct access to each aisle or the area behind seating used for cross-circulation should be large enough to accommodate the width of each aisle it is serving.⁶

⁵Burris-Meyer and Cole, op. cit., p. 37. ⁶Ibid., p. 58.

The various traffic lanes required by performers and technicians should not be visible or cross the traffic lanes of the public. The electrician must have access to the control room to the equipment room to light mounting and operating positions. Stagehands must have access from one side of the stage to the other at all levels. Actors must have access from the dressing room to the stage to any side entrances. The stage manager must have access to the front house manager to backstage. There must be at least audial access from house manager to greenroom and from greenroom to backstage.⁷

Behavioral Patterns of Client-User

The public either buys tickets in advance or reserves tickets in advance, sometimes tickets are bought at the time of performance. The public arrives from twenty minutes early to five minutes late. Interaction with other audience members occurs during intermission. An accepted tradition is to greet actors in the greenroom after a show.

There is a general tendency for cast and crew to become friends during a production, evidenced by the popularity of cast parties. At Manhattan Civic Theatre there is no star, cast, and crew hierarchy; all are considered important to the show.

⁷Ibid., pp.112,113.

Requirements of Special Groups

A person in a wheelchair should be able to reach any of the public areas without having to negotiate steps. If there are ramps, no slope should be more than one in 12, and the ramp should be flat at the top. Lifts or elevators should accommodate a wheelchair and an attendant. It is better to provide areas within the auditorium for a person in a wheelchair to view the show than to expect him/her to transfer to a regular seat. Separate escape routes for wheelchairs are desirable.⁸

CONCEPTS

Service Groupings

The separation of areas necessary for theatrical production, public from performance and the need to acoustically separate auditorium/acting space may necessitate decentralizing services. Cost will be a consideration. Services referred to include hearing, air conditioning, air ducts, electrical services, and plumbing services.

People Groupings

The auditorium is where public and performance areas overlap. This link is the key to successful theatre. To add to the contagion of feeling among audience members and

⁸Mills. op. cit., p. 72.

to encourage intimacy, allow visual contact between audience members and keep audience size within a set limit.⁹

There should be areas that allow personal encounters; for cast and crew, for audiences, and for audience, cast and crew after a production. Lounge, greenroom, and workspaces should be common spaces, design to promote chance and planned encounters.

Sizes and Kinds of Groups to be Housed

Allow for groups of 200 to use the public areas and 50 to use the private areas.

Activity Groupings

Public activities should be grouped; performance activities should be grouped; and production areas should be either physically adjacent or mechanical communication devices should be used.

Privacy

Visual and acoustical barriers should be provided between: the lobby/lounge and the auditorium; backstage performance and production areas and the stage; all circulation areas of performers and crew and all public spaces. Acoustical barriers only should be provided between the auditorium and the technical control booth.¹⁰

⁹Albert Mehrabian, Public Places and Private Spaces, New York: Basic Books, 1976, p.222.

¹⁰Burris-Meyer and Cole, op. cit., p.112

Priority

As producing quality theatre for the community is a high priority, size and quality of the acting/audience area should receive first priority in space allocations.

Relationships

To balance the needs of production with audience needs, provide backstage support facilities that allow the production people to do their job.

To balance the needs of individuals within groups, allow for free reign in personal creativity, allowing for special projects such as Etc. productions to have adequate facilities for rehearsal and performance.

To balance the needs of varied tastes among community theatre members, produce a range of plays that involves many different people, both as audience and in production. The acting area should be suitable for a variety of production types.

Security

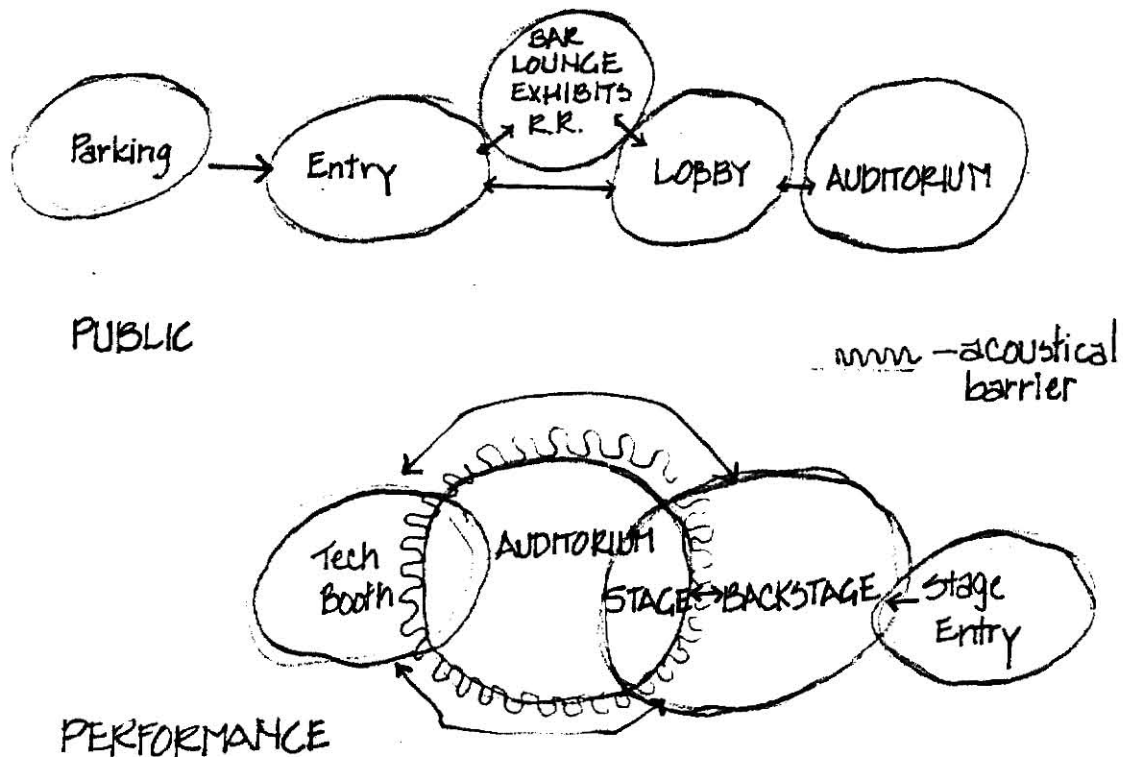
Security for people requires a safe location within the community, well-lit access area and entry (five foot-candles), extra lighting on steps and ramps, and in the auditorium, exit lights or luminous strips on tread edges.¹¹

¹¹Burris-Meyer and Cole, op. cit., p. 38.

Security for things includes locked storage cabinets for storage within multi-use areas, locked rooms if there are assigned areas for specific activities, and the possibility of a security person.¹²

Flow

Flow charts for traffic lanes:



Segregation

Separate entrances should be provided for: (1) cast, crew, and things, and (2) the public.

¹²Elder, op. cit., pp. 107-108.

NEEDS¹³Space Requirements

The space requirements listed in the "facts" section are acceptable for Manhattan Civic Theatre with the following ammendments:

The scene shop area may need to be larger.

The lounge size seems to be excessive and size could be compromised.

Parking Requirements

There should be parking space for 1/3 the number of people to be seated in the theatre.

The amount of parking will be determined by the conditions of the existing space if the site chosen meets other goals and requirements.

Building Efficiency Ratio

The 60/40 ratio was accepted as long as the 40% includes adequate space for storage.

The total square footage coincided with that of buildings under consideration.

Functional Alternatives

The establishment of dinner theatre will require

¹³Needs were determined as a result of decisions made at a programming workshop held at Manhattan Civic Theatre, January 30, 1982, at which the ideas under "goals," "facts," and "concepts" were discussed.

more audience space, storage, and a greater investment in furnishings.

Multi-purpose space will allow other activities to take place and help provide an income for the MCT organization by rent-outs, showing movies, etc.

Multi-form space will allow various stage configurations; consider a combination of permanent and flexible seating.

Chapter 3

FORM: SITE, ENVIRONMENT, QUALITY

GOALS

Site Considerations

MCT is searching for an existing building to adapt that meets its needs for size and accessibility. A building under consideration that will serve as an example solution for this report is the Wareham Ballroom, annex to the Wareham Hotel. The annex is on Humboldt Street near downtown Manhattan, Kansas.

Neighbors

The theatre should be in an area or a building where the activities of a theatre would not interfere with the activities and needs of the neighbors.

The theatre should be in an area or a building where there is no excessive noise generated by the neighbors.

Being downtown in a commercial area, the Wareham Ballroom would be compatible with its neighbors if adapted to a theatre.

Community Investment or Improvement

MCT is a community organization that would be a positive cultural addition to the area in which it locates.

Psychological Environment

The environment should make patrons feel comfortable, yet excited about the activities that take place in the facility.

Personal Individuality of the User

The individual user should feel creative and alive in the environment of the theatre.

Entry

The entry should be visible to people approaching from main accessways and from the parking areas.

Projected Image

MCT should project an image of creative vitality.

Level of Quality

The physical environment should be high quality, the best.

Balance of Quality

The optimum size should be small enough to maintain high quality, yet large enough to allow unhampered production. Intimate theatre is a priority over unlimited growth.

FACTS

Site Analysis

For a complete analysis of the sample solution site, the Wareham Ballroom, see the Appendix to this report, p. 164-16

Climate Data for Manhattan, Kansas:¹⁴

Seasonal Temperature. Normal means range from 29.2 degrees Fahrenheit in January to 78.5 degrees Fahrenheit in August. Maximum means range from 39.5 degrees Fahrenheit in January to 91.5 degrees Fahrenheit in August.

Precipitation. Average annual rainfall is 30 inches.

Snow. The normal annual average is 17.6 inches. The average annual number of days the ground is covered with snow is 22.

Wind Direction. January winds come from the North-west. February and March winds come from the North. The rest of the year winds come from the South.

Sun Angles. Altitude is the true angle of the sun's rays with the earth's surface. On June 22, the beginning of summer, at 8:00 a.m., the altitude is 37 degrees; at 1:00 p.m., 70 degrees; at 4:00 p.m., 37 degrees. On March 21, the beginning of fall, the altitude at 8:00 a.m. is 22 degrees; at 1:00 p.m., 47 degrees; at 4:00 p.m., 22 degrees. These altitudes are the same at the beginning of spring. On December 22, the beginning of winter, the altitudes are: 7 degrees at 8:00 a.m.; 30 degrees at 1:00 p.m.; and 7 degrees at 4:00 p.m.

¹⁴Climatological Data For Central United States,
U.S. Government Publication, C30.18E.

Form-Giving Significance of Code and Zoning Requirements

Codes that would affect the theatre are those pertaining to life safety: means of egress and flammability codes. For a complete list of pertinent codes see the BOCA codes in the Appendix to this report, p. 168. Manhattan has a signage ordinance that would affect marquee and exterior signage. Refer to the Appendix to this report, p. 178.

The theatre should be in an area zoned C2 to C4, commercial development. The building under consideration, the Wareham Ballroom, is in a commercial zone.

Psychological Implications: Of Form on Territoriality and of Form on the Movement of People and Vehicles.

Two basic needs of human beings that determine how well they interact with their environment are the need for things to make sense by being controllable, not chaotic or disordered, and the need for involvement. Boredom is the result of an environment that is too bland to make sense or to elicit involvement. Form must be coherent and orderly, yet retain enough complexity to maintain involvement.

Quality: Cost per Square Foot

Any cost per square foot figures normally used in determining whether a building would be austere, moderate, or superb would be misleading, as most of the work for MCT would be volunteer.

Quality: Building Efficiency

Net assigned areas are all areas that are required to

fit the basic program. Unassigned areas are all other spaces, circulation being the largest, and including general toilets, mechanical spaces, janitor closets, unassigned storage, walls, and partitions. Gross area is the combination of assigned and unassigned spaces.

Building efficiency ratio is the percentage of unassigned to assigned spaces. For an auditorium, 60/40 is a reasonable ratio. Commonly, superb ratios are 50/50; moderate ratios are 65/35; and austere are 70/30.¹⁵ A total square footage recommendation based on the requirements listed under "Function Needs" in this program is 6,000 square feet. The desired net assigned areas for the auditorium to be considered reasonable is .60. The resulting figure is 10,000 square feet, the suggested building size for better than moderate quality.

Quality: Functional Support Spaces

The amount of assigned storage available in a building is an indicator of quality. The best quality building for MCT would have all the following storage areas:¹⁶

Scenery storage. Adequate scenery storage requires horizontal space for lumber; vertical storage for sheet materials and rolls of materials; storage for flats, arches, door frames, windows, columns, platforms, and stairs.

¹⁵William Peña, Problem Seeking, Houston: Cahners Books International, 1977. pp.

¹⁶Elder, op. cit., pp. 106-110.

Property storage. Properties can be stored on shelves in the workroom.

Costume storage. Costume storage requires racks for clothes, bins for hats, and bins for shoes and accessories.

Make-up and wigs. Storage for make-up and wigs should be in or near the dressing area and make-up room is cabinets.

Lighting. Lighting should be stored on tiered racks.

"House" storage. Kitchen and bar storage and tables and dinner accessories must be stored near where they are used.

Administration storage. Storage to be accessible to the office includes space for records, a play library, catalogues, and archival material(slides, photos, and drawings of past productions).

CONCEPTS

Site Features to be Preserved or Enhanced

The suggested solution building, the Wareham annex Ballroom, has several outstanding features. The facade

should maintain its character and relate to neighboring buildings. The interior features include extensive plaster ornamentation, a floor on springs for dancing, an existing stage/audience relationship, and a 48-foot clear span. The design should preserve these features.

Implication of Climate Analysis on Climate Controls

Kansas has extremes of weather than require total climate control year-round.

Implication of Code Survey

Fire and life safety codes will affect exits, interior signage, and width and configuration of aisles and seating. Signage codes will affect size, material, and location of exterior signage.

Neighbors

Sharing or interdependence may be possible with neighbors; for example, a restaurant may help with dinner theatre or arts council offices may add to the "cultural center" idea.

Orientation

A sense of orientation from the exterior is maintained by a building that is recognizable and memorable, which would make sense and be involving.

A logical flow of spaces maintains a sense of orientation within the building.

Accessibility

The public entrance should be a focal point, using signage, lighting, and location in relation to access areas to make the theatre accessible and visible.

The building should be on a street or in an area of town that is accessible to the entire community.

Character of Form

To promote the image of quality for the audience:¹⁷

(1) Provide comfort for the audience with seating that is at least 22" wide by 34" back to back, padded and upholstered with non-pile surfaces.

(2) Provide good vision for the audience by close design attention to sightlines, considering staggering seating or risers.

(3) Provide good acoustics for the audience by controlling background and external noise, controlling reverberation with absorbant surfaces, and avoiding configurations that cause echo.

(4) Provide house lighting that allows desired visibility (to read programs, find a seat, and see friends) and creates a mood. Use low brightness, white light that does not reflect off walls.

(5) Create mood with color and materials of quality. Dark colors do not reflect stage light and can give an image

¹⁷ Horace Robinson, Architecture for the Educational Theatre, Eugene: University of Oregon Press, 1970, p. 120. See also: Burris-Meyer and Cole, op. cit., p. 63.

of richness. Carpet of good quality can add to comfort and image.

(6) The lobby sets the mood for the play and should be theatrical in design. Materials and finishes should be chosen for their appearance and quality. Creative recycling can cut costs.

NEEDS

Construction Quality

Cost per square foot is dependent on the needs created by the site and on the amount of volunteer labor. Any standard figures and guidelines would be misleading.

Environmental and Site Influences on Cost and Quality

The site will control factors such as size of spaces, amount of support spaces, and arrangement of spaces within the building.

As quality of production spaces are still highest priority, structural changes that make them possible will be allotted the most money.

The character of the space influences the audience as well as the actors and money should be spent on improvements that are visible.

Chapter 4

ECONOMY:
INITIAL COST, OPERATING COST, LIFE-CYCLE COST

GOALS

Extent of Funds

As MCT has no funds beyond a month-to-month operating budget, fund-raising projects will be the source of money for the project.

Cost-Effectiveness

MCT does not want to continually replace essential materials and equipment, so cost-effectiveness is a goal.

Maximum Return

MCT wants to invest in items that provide the most return, by making audience experience pleasurable, thus selling more tickets.

Return on Investment

MCT is a non-profit organization that would like to be self-supporting, meeting its expenses and having money for improvements.

Minimizing Operating Costs and Maintenance

Easy maintenance is important as volunteers prefer to spend their time producing plays. Operating costs should be kept to a minimum.

Reducing Life-Cycle Costs

Items that have a low life-cycle because they have high quality are also the most cost-effective. Essential items should be chosen for this quality.

FACTS

Time-Use Factors for Combined Functions

Possibilities for combining the functions of areas are considerations if lowering costs becomes necessary. The public areas most likely to be combined are the foyer/lobby/lounge. The three functions are simultaneous. Arrangement of circulation paths becomes crucial if the three are the same space.

The following production/performance areas can be considered for combination:

(1) The stage can be used as rehearsal space and for set construction. Conflicts occur between rehearsals and set construction. If more than one show is in rehearsal at one time, rehearsals will conflict with each other.

(2) The greenroom can be combined as a meeting space, greenroom, and make-up room. Meetings will not take place on performance nights, so no time conflict occurs if the space is large enough to accommodate making up and greenroom functions.

(3) Set construction, properties construction and fabric dyeing and printing are similar functions that occur in the same time period. Size and arrangement of space will

avoid conflicts.

(4) A general workroom can be used as rehearsal space, meeting space, overflow costume and dressing space, etc. Time conflicts are possible but careful scheduling can avert problems.

(5) The location of the stage in relation to the loading area will determine whether the combination of loading dock and off-stage live storage is feasible.

In the public areas of the theatre, it is possible to use the lounge as meeting space, as rehearsal space, and as the area the cast greets the audience after a performance in lieu of a greenroom.

Wear and Tear Factors

The wear and tear of activities on materials, finishes, and furnishings is a factor of the kinds of activities that take place and the choice of materials. Backstage operations are the most wearing and need to be as purely functional as possible. They must withstand heavy use by people using paints, glue, dyes, make-up, tools, and the movement of large set pieces and properties. Lobby spaces must withstand the traffic of each person that enters the building and the messiness of outdoor/indoor transitions. Lobby spaces should be finished with materials that keep good looks with easy maintenance. Lounge and auditorium spaces are the ones that must be the most luxurious, yet withstand the wear of 200 or more people a night.

CONCEPTS

Cost-Control

If compromises are to be made to stay within budget, they should be made on areas of lower priority, the highest being the stage/audience area.

Allocation of Funds

The money available should be used to buy the best of items that are long-term investments: seating, risers, stage equipment, and carpet (if used).

Feasibility of Multi-function Areas

Because of the time-use factors, these spaces are the best multi-function areas:

(1) The lounge is good for meetings, especially those that involve the public. If the furnishings are moveable, size would make it a good rehearsal space. It is also separated acoustically from the auditorium.

(2) The greenroom is an all-purpose actors' room, used primarily during performances. The greenroom is a good place for meetings and can be used for some costume fittings and construction as storage is provided elsewhere.

(3) Construction areas can be combined into one large multi-use area as a general workroom. If non-construction uses are to take place, such as overflow dressing during a performance, there must be lockable storage within the space. Rehearsal spaces and construction spaces should not conflict.

Merchandising

The well-lighted marquee is good showmanship and will help promote the theatre. Advertising will also help promote the theatre. The possibility of rent-outs or food as ways to make money should be considered.

Maintenance

Materials, furnishings, and finishes should be chosen for easy maintenance.

NEEDS

Cost-Estimate Analysis

Total budget will be determined by the requirements of obtaining the site, initial improvements that must be made to make the site useable, and the results of fund-raising activities.

Operating Costs

Based on Paul Shull's estimates in a building, which do not include rent and do include a paid part-time manager, the operating costs are as follows:

Physical plant:

Manager, part-time	\$400/month
Insurance	200/month
Taxes	200/month
Utilities	300/month
Maintenance	200/month
Misc.	<u>100/month</u>

Total	\$1,400/month	\$16,800/year
Theatre Costs: (increased from current budget)		
Royalties, Scripts	\$2,500/year	
Show budgets	3,000/year	
Advertising	2,500/ year	
Printing	<u>3,000/year</u>	
Total	\$11,000/year	
Total estimated operating costs		\$27,800/year

Chapter 5

TIME:
PAST, PRESENT, FUTURE

GOALS

Historic Preservation

MCT promotes the idea of preserving the historic character of an existing building that would be adapted.

Static/Dynamic

MCT has no choice but to be dynamic as an organization.

Change

The functional goals of MCT should not change, but the ways of implementing them could change with new personnel.

Growth

MCT could grow as the need for theatre in Manhattan grows.

Occupancy Date

MCT would like to be in the new facility as soon as possible.

FACTS

Significance of Existing Building

If the Wareham annex is chosen as a site for MCT,

the building would have major significance on three levels: (1) the building itself is the last remaining ballroom in Manhattan, with its dance floor on springs and no extensive changes; (2) as a Wareham building, the ballroom is part of the development of the city by the family that contributed in many ways to Manhattan's growth, especially in the performing arts; and (3) as a significant factor in aiding the preservation and development of downtown Manhattan providing an after-five use for the area that is needed and desired

Significance of Neighboring Buildings

The major neighboring buildings to the Wareham annex are the Wareham Hotel and the Riley County Courthouse. The building could be made to tie in to its neighbors as part of the design of a planned public square behind the courthouse and adjacent to the Wareham annex. There is an existing walkway from the annex to the hotel that could be developed to tie the two structures together to create access from the hotel restaurant to the theatre.

Existing Activities Most likely to Change

Production schedules may be increased to more than the current five shows per season. The expansion of a schedule would mean more rehearsal space and more set construction space would be required.

As the organization grows, the addition of a paid manager is a possibility.

The feasibility of dinner theatre and a liquor license are being considered. Storage requirements and auditorium arrangement would be affected.

Functional Projections

Growth would depend on the increasing popularity of theatre in Manhattan. Growth would be limited to the size of audience that the building would allow.

Time Schedule

MCT must find a new facility in order to be in operation in Fall, 1983.

CONCEPTS

Historic Preservation

An existing building should be chosen that has a character that will be an asset to the image, quality, and visibility of the theatre.

Loose Fit

A loose fit will allow for future organizational changes. A 60/40 efficiency ratio is generous with unassigned spaces that can accommodate change.

Convertability

Convertible interior spaces are the multi-use areas already mentioned. A potential need to change the stage configuration should be based on the kinds of plays produced.

Expandibility

MCT is not likely to enlarge a building if enlarging is not initially planned for.

NEEDS

Phasing

Phasing of construction is very likely:

(1) Do what is necessary to function as a theatre within the space.

(2) Make structural changes in the building that create the theatre: acting/audience area, backstage areas, and public areas.

(3) Emphasize audience amenities: fund-raising efforts should be applied to particular projects, such as carpeting or new chairs.

Chapter 6

THE PROBLEM

FUNCTION

People

Since MCT's goal is to provide true community theatre for Manhattan, Kansas, the new facility should be accessible to all theatre-goers and doers, visible to the public, permanent, comfortable, safe, and attractive.

The facility should promote social interaction and group functioning, yet allow individual creative expression.

Activities

Since producing high quality plays is the primary activity; all functions should be geared to the success of the audience/acting area with adequate support areas, correct adjacencies of spaces, and secure equipment areas.

Other activities to take place in the theatre are also performance related, and the space should be flexible enough to accommodate a variety of performance types as well as a variety of plays.

Relationships

Proper relationships of spaces allow smooth running of a performance. The separation of public/performance from production/performance areas is done with entrance

locations, circulation paths, and visual and acoustical barriers.

FORM

The building to be adapted will affect stage/audience size and configuration, size and adequacy of both public and production support spaces, as well as the physical appearance and image of the theatre.

The site will be chosen with location, visibility, size, and quality as criteria.

The overall quality will be as high as funding allows.

ECONOMY

Since initial budget will be determined by the success of fundraising activities, the quality will be the best that can be afforded, with operating costs kept low. Essentials to producing a play will be purchased with life-cycle costs in mind. Phasing construction allows purchasing the best when money becomes available.

TIME

A historic building will add to the image of the theatre.

The theatre will change as money and demand allows: additions of dinner theatre, paid management, and increased production schedules will be considered.

Part 3

A Design for Manhattan Civic Theatre

Chapter 1

THE SITE: THE WAREHAM BALLROOM

To meet the requirements of the project portion of the report/project option for the degree Master of Architecture, I have chosen as a design model a building that best meets the objectives of Manhattan Civic Theatre. At the time of this writing, however, the building is not available. The design serves the purpose of showing how the needs of the group can be adapted to another location; some are unique to this building due to its configuration and character.

The building chosen is a 1928 ballroom in downtown Manhattan. Built as an annex to the Wareham Hotel by Clarence Johnson for H.P. Wareham, the structure was originally a garage on the first floor and a ballroom on the second floor. The dance floor on springs was the ballroom's most well-known characteristic. "It was the most famous ballroom in the area because of this feature and was very popular with the University students..."¹ The popularity of the ballroom extended through the big band era. A black and

¹Ruth Wareham, notes in the archives at the Riley County Historical Society.

white photograph taken shortly after opening shows an elaborately decorated room that has not been greatly altered. The plaster ornamentation on the walls and above the stage still for the most part exist, but the painted decorations that covered the ceiling and engaged columns have been painted over. Two balconies overlooked the dance floor; the one above the stage has been enclosed.²

In recent years the structure has been a Y.M.C.A. Gym flooring covers the old wooden dance floor and stray basketballs have damaged the ceiling plaster. Other damage has been caused by a badly leaking roof which has destroyed much of the plaster on the west wall. The exterior remains virtually unchanged. The downstairs is now the location of the Riley County Health Department, a wing houses the Jazz Educators Association. The ballroom is vacant; areas backstage are used for storage.

The Wareham ballroom was chosen as a site for MCT primarily for its 22-foot high ceiling and 48 x 85-foot clear span, which makes an ideal location for a theatre. The objectives of visibility, being a familiar landmark, and accessibility, a downtown location, are automatically met. The special characteristics of this building make it attractive and exciting; preservation becomes a more important goal. The existing configuration of the interior spaces is

²Archives of the Riley County Historical Society

conducive to theatre design, with backstage areas, audience/performance area, and public areas already defined. Other goals will be easy to meet in the design of the space.

Trade-offs, inevitable in an existing building, relate to access and circulation. The second floor location requires extra attention to means of egress for occupants and requires an elevator for handicapped access. Within the building, circulation is a factor in making the spaces work. Public access to seating, which is on risers, must be compatible with the need for level access from one end of the building to another. The present location of restrooms conflicts with the need to allow for circulation of cast, crew, and set elements out of sight and hearing of the public.

Thus, the site presents easy solutions in the layout of spaces; the design concerns become circulation and access and the special needs created by the chosen stage form, a modular stage with partially fixed, partially flexible seating.

Chapter 2

DESIGN ANALYSIS

Existing Conditions

The present layout of spaces in the Wareham Ballroom can be divided into three parts. The north side entry area consists of two rooms on either side of the stairwell and a balcony level above. The original ballroom is a 48' X 84' X 22'H open space. The south end of the building contains restrooms, offices, storage and a wing 27' X 50'. The upper level of this area is a 16' X 48' room that was originally open, overlooking the ballroom, but is now enclosed. A rear exit includes a covered walkway over the alley to the Wareham Hotel.³

The limitations set by the structure are minimal. The wall dividing the ballroom from the south end of the building is structural. Steel columns, 17' on center, provide support at the south end. The north half of the building is clear span with no support columns.

Immediate repairs to the roof are necessary; replacement

³See existing plans, pp. 115-116.

may be required. Extensive damage to the plaster on the walls requires replacement, especially in the ballroom. Windows in the ballroom should be repaired or replaced where necessary.

Phasing the Project

Due to the configuration of spaces and the physical condition of the Wareham Ballroom, the phasing of the project is suggested. Major initial expenses will involve repairs to the roof and the plaster walls as mentioned under existing conditions. Another major and necessary expense is bringing the building up to code by adding fire escapes and adding fire-rated doors. Once repairs are made and code requirements are met, operating a theatre in the space requires minimal intervention. The final design, which can be reached gradually as funds are raised, retains the original spacial designations of phase one; thus, all changes are additive to a basically unchanging layout which places public spaces near the north entry and production spaces in the south end & wing; the ballroom is the performance/audience link.

The ballroom can be used as a completely flexible theatre with Manhattan Civic Theatre's existing stage modules and risers. The public restrooms for men and women can be used in their existing locations. The backstage area can be used as is, or selective demolition of walls that would be eventually removed can take place. Handicapped access can occur via the

walkway to the Wareham Hotel where an elevator is available.⁴

The Design

Although the final design considers cost factors, especially in location of facilities that require plumbing, it is to be considered a "cadillac," to be arrived at in stages as funds allow. Additions and changes to the Phase 1 layout should be made in order of priority. As the performer/audience relationship is the most important, the first major expenditures should be in this area, secondary expenses consider audience comfort and address the need for visual privacy between the production space and the public space. An elevator for the handicapped access keeps public circulation away from backstage and allows easier catering of dinner theatre. Rearranging the restrooms and separating access to them from the actors path from greenroom to stage, creates minimal, but adequate, restrooms without relocating plumbing. Other changes involve opening up of backstage areas and making them more efficient, and addition of furnishings and finishes that add to the desired luxurious ambience of the theatre.

Public Areas⁵

The entry stairway opens directly into the lobby or

⁴See Phase 1 Plans, p. 117.

⁵See Plans & Sections, pp. 118-123.

to the box office, with its small waiting area that can be closed off from the rest of the theatre. The box office and house manager's office are one space; theatre guild storage is also included.

The lobby is a 15' X 48' rectangle created by the risers built overhead. The length of the lobby allows an art exhibit space. A door between the lobby/audience area creates an acoustical barrier between public space and performance space.

Adjacent to and spilling into the lobby is the concession area, serving non-alcoholic beverages and light snacks. The atmosphere of the lobby/concessions area is casual with a theatrical theme created by introducing elements such as director's chairs and strip lights.

Access to the upstairs bar/lounge is via a pair of stairs flanking the stairwell (an original stair, once removed, has been replaced). The lounge is a private club, with liquor served at the bar. Dinner (catered) is served buffet style at the bar. An elevator allows caterers to bring in food; serve; and remove supplies without disturbing other areas of the theatre. The elevator also provides handicapped access. The lounge is level with the last row of dinner tables, separated by a wall in the location of the original balcony wall. The lounge is more formal than the lobby, with a 1920's theme, reminiscent of the ballrooms heyday, and luxurious furnishings.

Restroom facilities remain in the south end of the build-

ding; level access is via a corridor the length of the audience area. Public access backstage is routed to restrooms and to the greenroom through corridors that allow visual separation of actors' space from public space.

Performance Area⁶

The audience seating is divided into two parts, dinner and non-dinner. Dinner seating is on permanent risers and is accessible either from the lounge or through the lobby. Eighty-six diners can be accomidated at 4'X 2'6"rectangular tables. The tables are hinged to the railing to fold down for cleaning or to be replaced by chairs if increased seating capacity and no dinner is desired. The regular seating consists of standard theatre seats in groups of four bolted to risers on casters that can be rearranged according to the stage configuration. This seating can accomidate from 72 to 118 additional patrons. Storage for this portable seating is under the permanent risers. The stage consists of 4' X 8' platforms 2' high. These platforms can be arranged into a thrust, an arena or an end stage position.

Production Areas⁷

Off-stage space is an area directly adjacent to the stage opening. The off-stage space and the area directly behind the proscenium, which is sometimes used for seating and

⁶See Plans & Sections, pp. 118-123.

⁷See Plans & Sections, pp. 118-123.

sometimes part of the stage, is raised 2', level with the stage modules. A wall acoustically separates the off-stage space from the rest of the back stage area. The wall directly opposite the stage opening is replaced by an overhead door, allowing a wide opening to move constructed set pieces from scene shop to stage.

The scene shop is created by demolishing backstage walls leaving only a small room in the southwest corner of the building for the technical director's office and lockable tool storage. An existing restroom to serve the crew is also remaining.

The scene shop includes a clear area 16' X 16' that is directly accessible to the stage where set pieces can be assembled. Also adjacent is a clear area for scene painting which is directly accessible to the slop sink & paint storage lockers, a messy work area. Storage is provided for current-use items; flats, lumber, canvas and muslin.

The dressing/make-up room is designed for 6 - 8 people. There is a shower, a toilet, a sink and three dressing cubicles. A lighted make-up mirror seats six people.

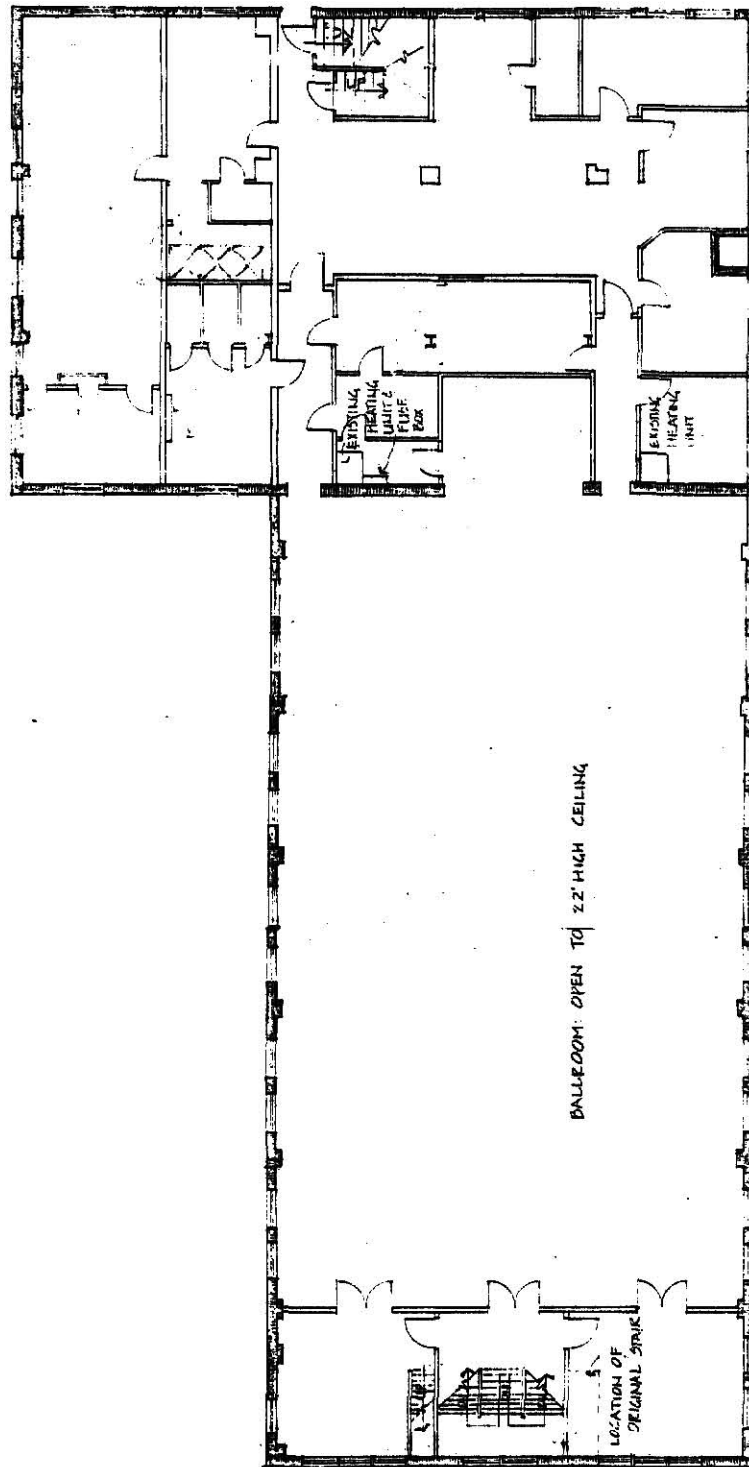
The greenroom is reached through the dressing room or through the public corridor. Large, light and open, the greenroom contains a kitchenette and comfortable furniture. The south end of the greenroom is a costume workroom with a large layout table, counter topped storage and hanging space for costumes currently in use. The costume workroom is intended for

"clean" work such as some property construction or poster/program layout. The area can also be curtained off to provide dressing & make-up area for large-cast productions. The north end of the greenroom is a public reception area to be used for meetings as well.

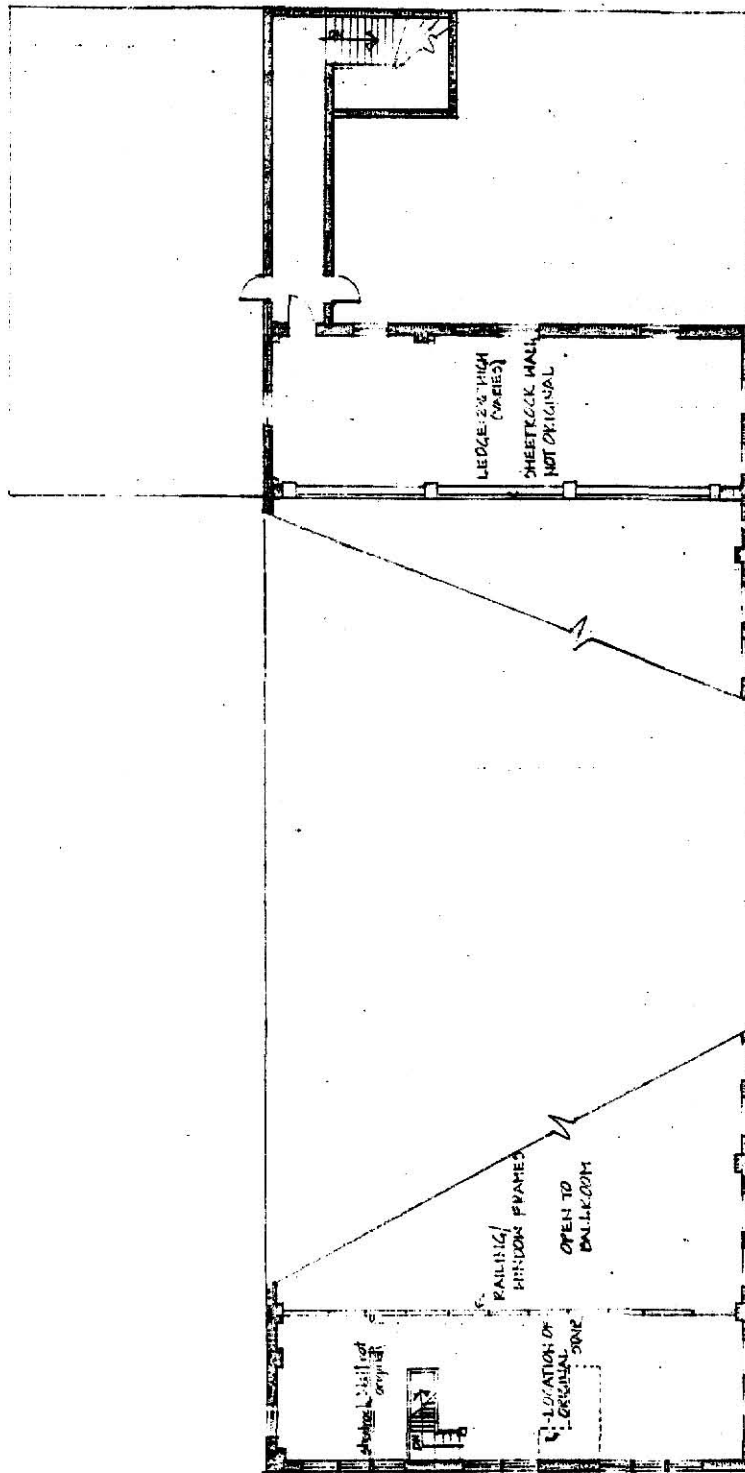
The upstairs room is a rehearsal space, large meeting hall, or small theatre for ETC. productions.

The technical control booth is built into the lounge area overlooking the audience/stage. The counter in the booth is raised for better sight lines.

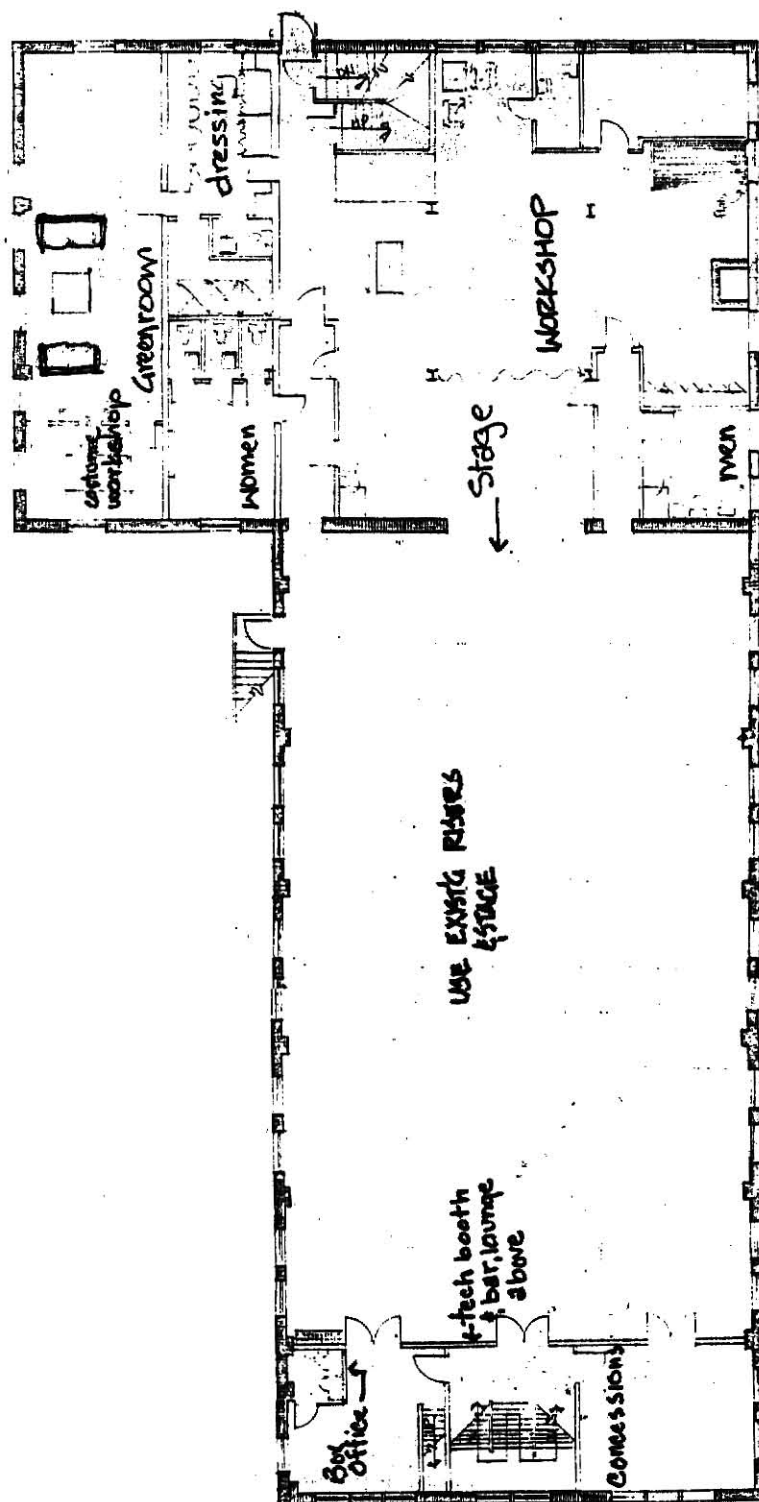
Storage for seldom used costumes, set pieces, properties and miscellaneous items is in the basement. Lighting equipment is stored where it is used and in the tech booth.



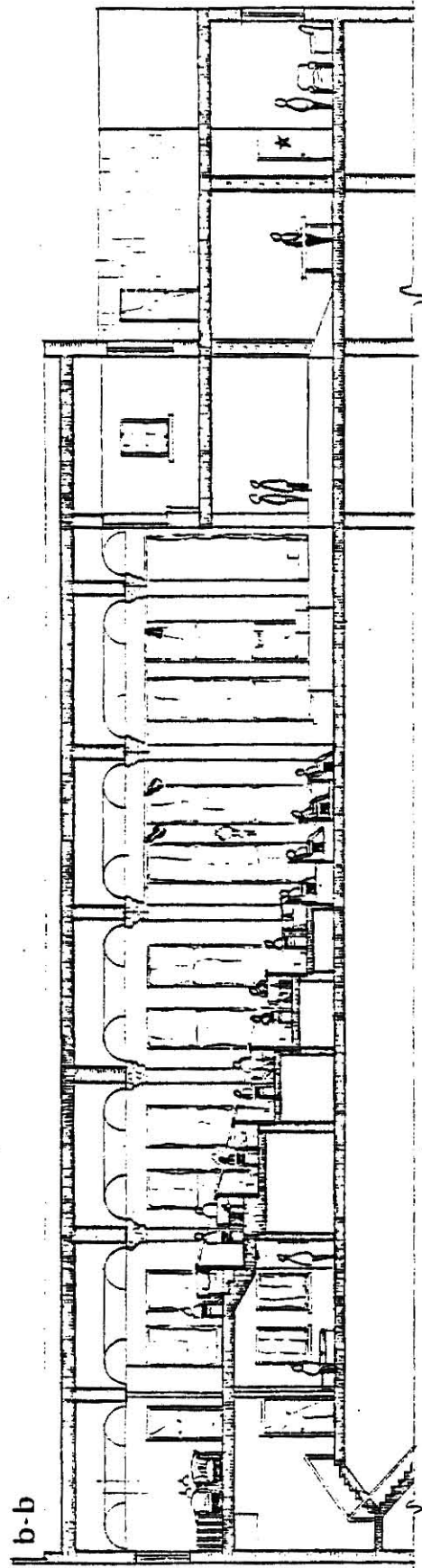
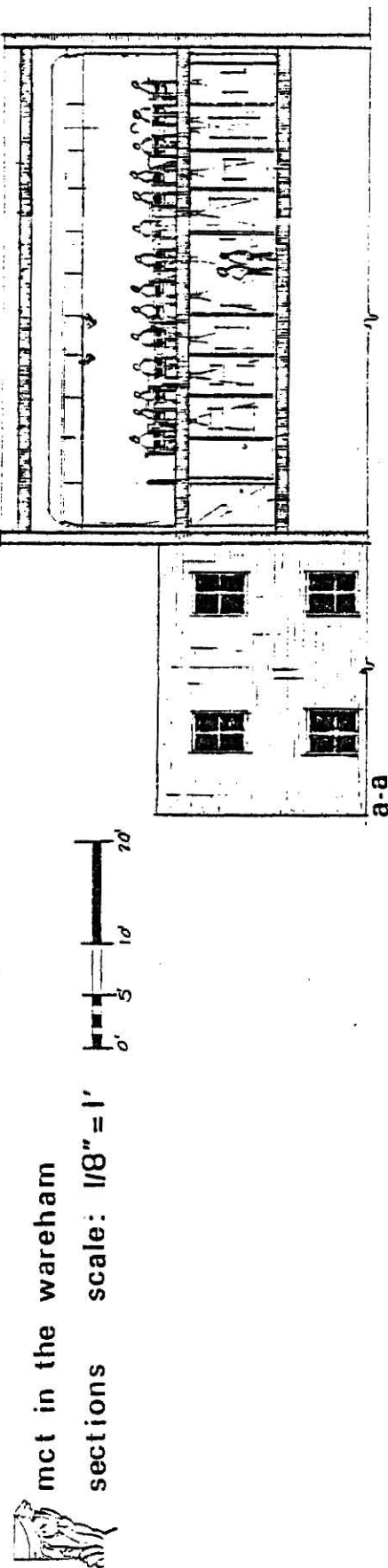
WAREHAM BALLROOM: EXISTING CONDITIONS, LEVEL 1

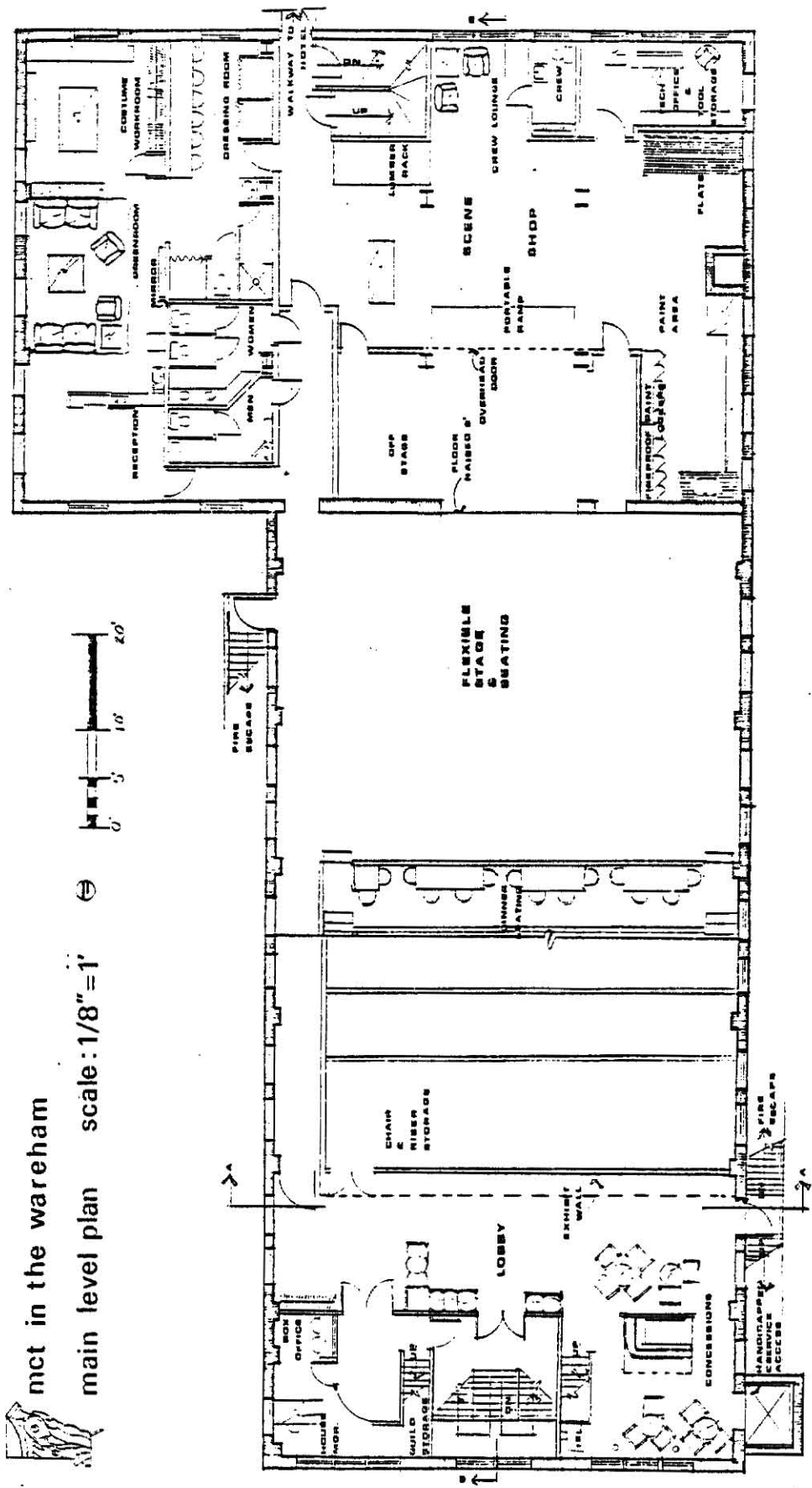


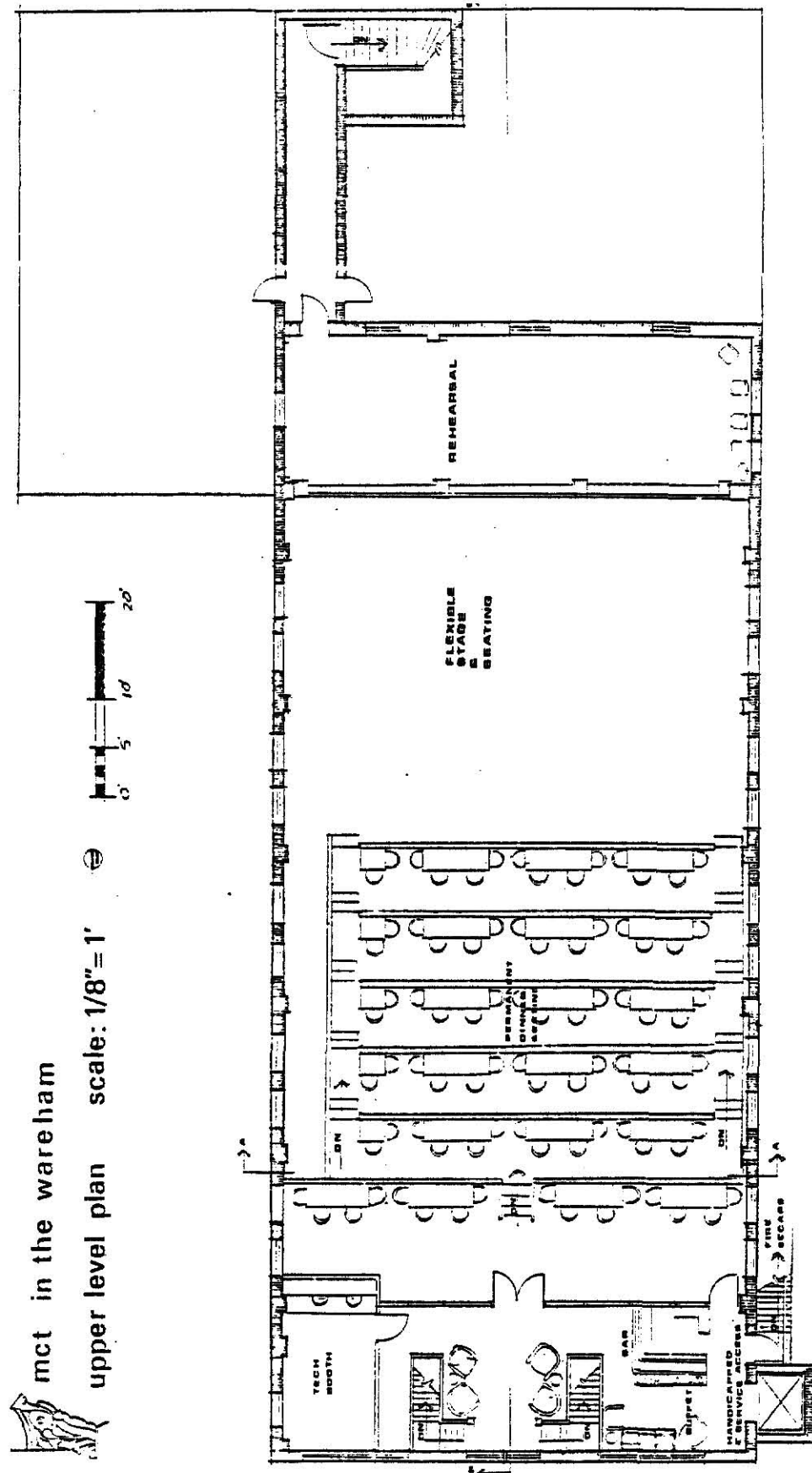
WAREHAM BALLROOM: EXISTING CONDITIONS, LEVEL 2



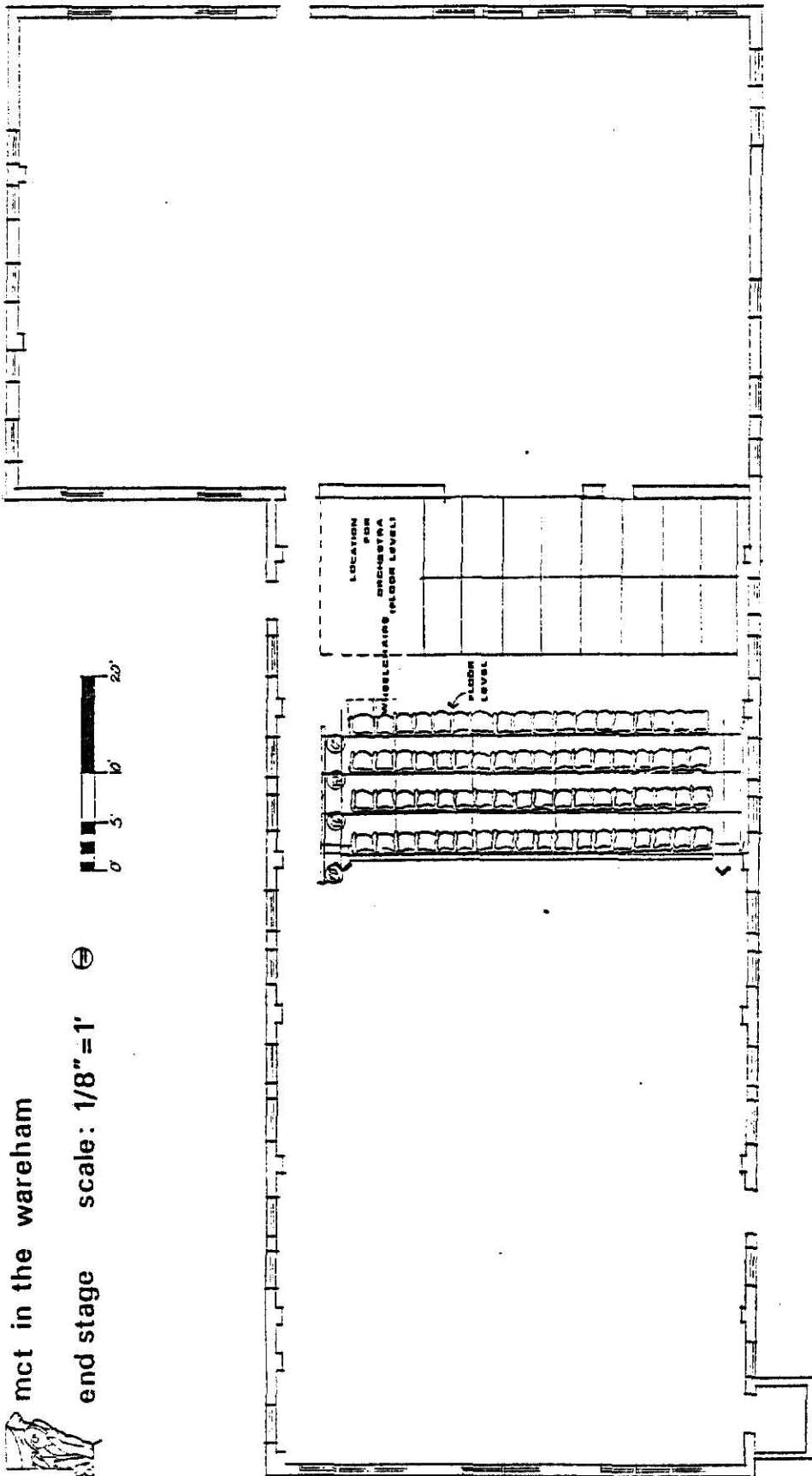
MCT IN THE WAREHAM, PHASE 1

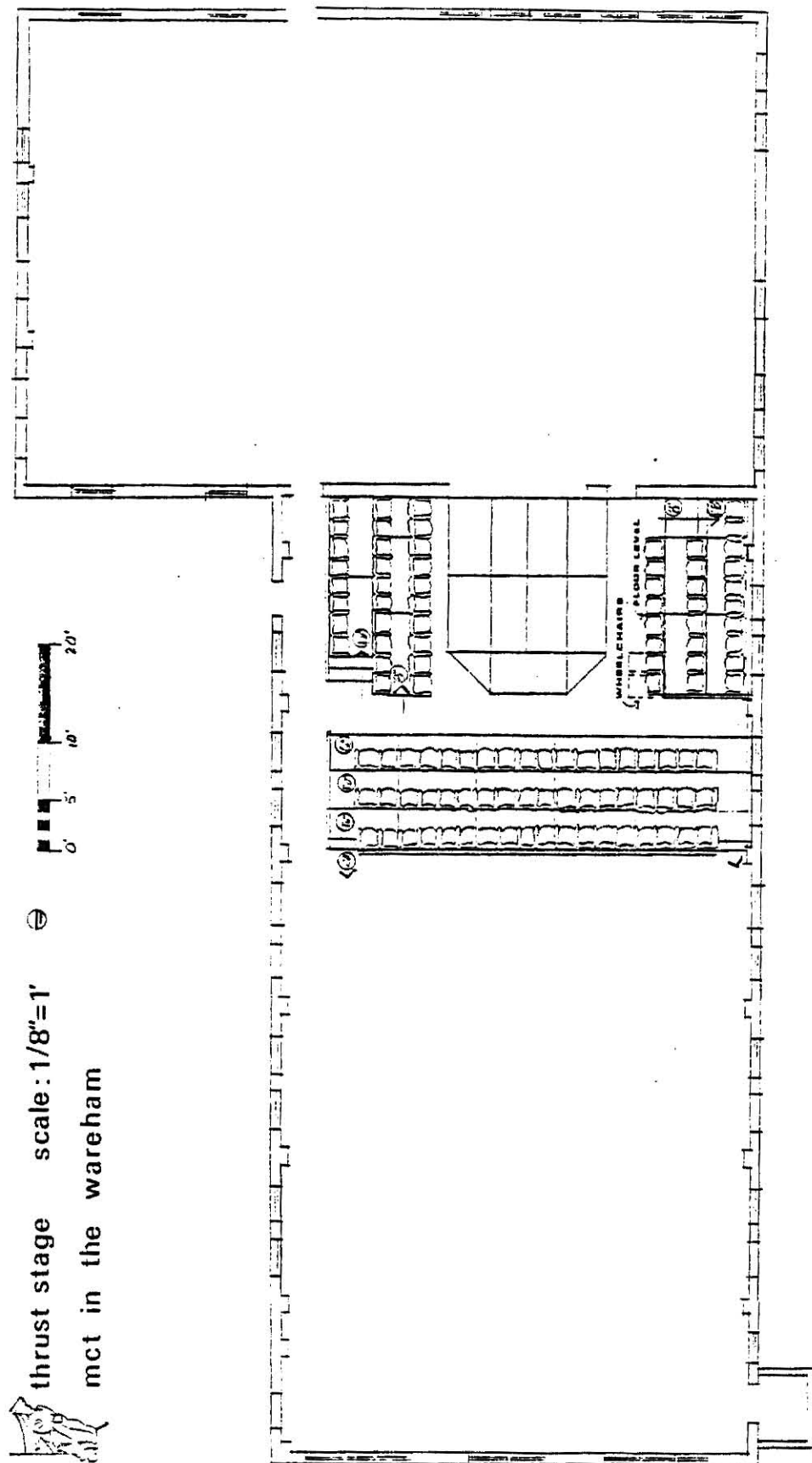


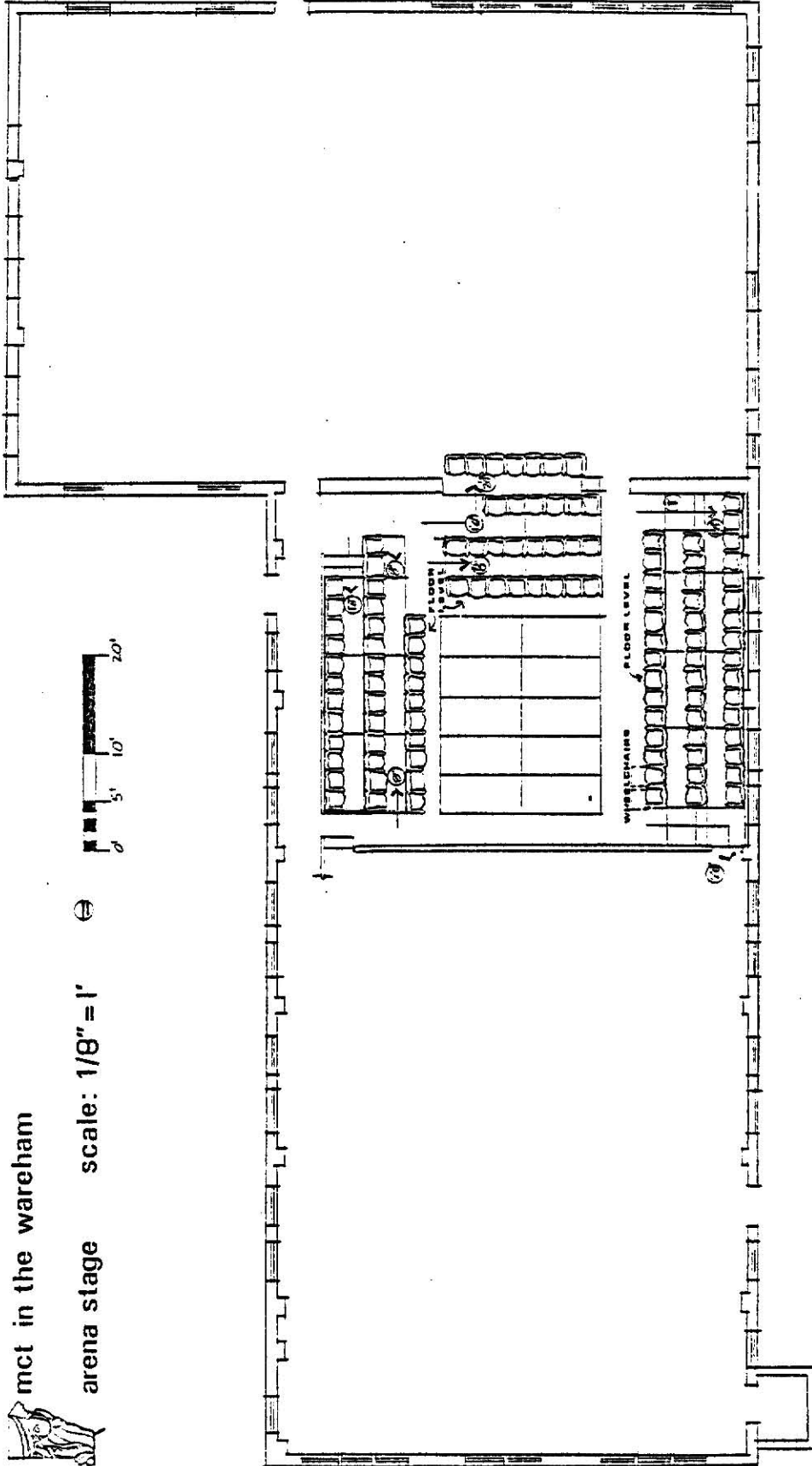




mct in the wareham
upper level plan scale: 1/8"=1'







Chapter 3

SPECIAL CONSIDERATIONS FOR A THEATRE DESIGN

Sightlines

Part of the concern for audience comfort as well as the promotion of the performance is assuring that each person in the audience has a clear view of the action on stage. Sightlines are made more complex by the use of a multi-form stage; thrust and arena stages, with their three-dimensional acting areas, present the problem of one actor covering another. Thrust and arena stages are generally lower than a traditional stage, and seating is more steeply raked.⁸ In the case of Manhattan Civic Theatre, the use of dinner tables creates a further complication; the greater seat-to-seat distance created by table and aisle space affects sightlines.

The height of seating risers for the theatre in the Wareham Ballroom was calculated using a graphic method. The first step is to decide the lowest and nearest point that the whole audience should be able to see. This point, for MCT, was determined to be 18" off the floor at the front edge of the stage in the thrust position and is referred to as point "p".

⁸Eldon Elder, Will It Make A Theatre?, New York: Drama Book Publishers, 1979, p. 100.

The point is approximately the actor's knees; configurations of the ballroom and the complications mentioned above cause this compromise. From point "p", a line is projected to eye-level of the first row; this line is required to be above the horizontal plane of point "p". A person's seated eye-level is considered to be 3' - 8" above the floor. A person's head is 4" above eye-level. To locate the level of each riser past the first row a line is projected through point "p" over head level of row "a" to the point 3' - 8" above the position of the seat in row "b". A perpendicular is dropped from eye level to determine the location of the riser. The process is repeated for each row of seats.⁹

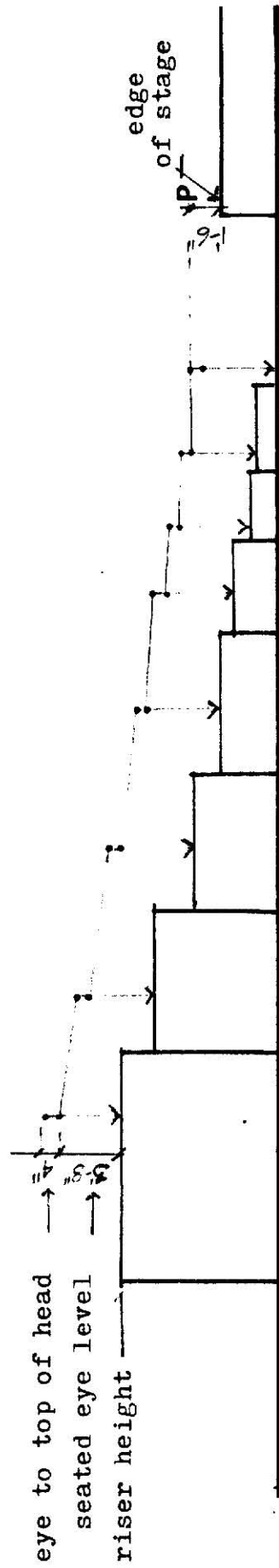
Calculating sightlines in this manner results in dinner risers being at typical increments of 1' - 6". The last row of risers is level with the existing balcony and is at the outer edge of comfortable viewing distance, 60' from the stage. The riser height is an advantage; space created by the last two rows of risers allows an acoustically separated lobby below and behind the seating area.

Acoustics

Like being able to see the actors clearly, being able to hear them clearly is an important factor in serving both the audience and the performance. There are two factors to

⁹Stephen Joseph, New Theatre Forms, London: Pitman, 1968, pp. 111-113.

See also Illustration, p. 126.



SIGHTLINE CALCULATIONS

consider in insuring good acoustics, the noise level both inside and outside the theatre and the reflectance of the surfaces in the room.

Repeated reflections off the surfaces in a room is reverberation. In spaces to be used for speech, highly reflective surfaces are undesirable. A reverberation time calculation considers the absorption of all surfaces and materials at several frequencies, the most important being the mid-range frequencies, 500 - 1000 Herz. At these frequencies an optimum reverberation time for an intimate playhouse is from 0.9 to 1.1 seconds. Musicals require more reverberation, optimum is 1.2 to 1.4 seconds. In order to calculate the reverberation time for the theatre, the area in square feet of each surface was multiplied by the absorption coefficient of the surface material. The sum of the absorption figures was plugged into a formula that results in the actual reverberation time for the space. The Wareham theatre appears to be more absorptive than reverberant, 1.09 at 500Hz and .82 at 1000Hz. These figures are acceptable for drama. For a musical, reflective panels may need to be added---However, more finely tuned calculation would determine need and configuration of reflective surfaces.¹⁰

Noise outside the theatre leaks in through doors, windows and ventilation ducts; all must be sealed and sound-insulated. Noises generated within the theatre such as audience

¹⁰William J. McGuinness and Benjamin Stein, Mechanical and Electrical Equipment for Buildings, 5th ed, New York: John Wiley and Sons, Inc., 1971, p. 977-981. See also Illustration, p. 129.

noises & stage machinery noises are alleviated by the extra absorbancy of carpet and upholstery. Mechanical systems that operate quietly are important.¹¹

Color & Lighting

There are two distinct concerns in choosing colors and lighting for the theatre. The performance requirements are different from and somewhat at odds with the requirements of dining. Areas outside the audience/acting area serve unique functions with clear cut lighting needs.

The special needs of a performance area require that stage light does not reflect off other surfaces in the room. Often this is solved in small theatres by painting surfaces, especially ceilings, black. However, the performance area will also be a dining area, and audience concerns suggest that the atmosphere be pleasant and conducive to enjoyment of a meal. Faber Birren brings up the point that under low light levels (below 25 - 30 footcandles) darker colors lose their identity. A color with less than 20% reflectance will appear black and be somewhat disorienting under lower light levels.¹² To create the best possible ambience for dinner, yet meet acting area requirements, two basic colors were chosen as scheme colors to

¹¹Ibid., p. 993.

¹²Faber Birren, Light, Color and Environment, New York: Van Nostrand Reinhold Company, 1969, pp. 73, 94.

SURFACE & MTL.		AREA	α 500	α 1000	A ₁	A ₂
Wall -	Plaster	4600#	.02	.04	92	138
Wall -	Glass	432#	.18	.12	77.6	518.4
Ceiling -	Painted tile	4032#	.05	.04	201.6	161.28
Floor -	Carpet	1037#	.14	.32	564.8	1270.24
Doors -	Wood	105#	.10	.07	105.0	73.5
Windows -	Fabric Hung	560#	.11	.17	61.6	95.20
Grills		18#	.5	.5	9	9
Stage opening		196#	.75	.75	147	147
Chairs - Upholstered		2832#	.40	.88	2265.6	2491.6
Chairs - Wood - each		86	.22	.39	18.92	313.2
TOTAL					3484.6	4392.41
ACTUAL REVERBERATION TIME					1.04	.93
OPTIMUM REVERBERATION TIME FOR DRAMA					0.90	1.10

FORMULA

$$T_{60} = 0.049 \times \frac{\text{Vol.}}{A}$$

$$T_{60} = 0.049 \times \frac{13744}{3448.46}$$

$$T_{60} = 1.04 \text{ at } 500 \text{ Hz.}$$

$$T_{60} = 0.049 \times \frac{13744}{4392.41}$$

$$T_{60} = 0.93 \text{ at } 1000 \text{ Hz.}$$

α = COEFFICIENT OF ABSORPTION
A = ABSORPTION IN SABINS

ROOM ABSORPTION CALCULATIONS

use in variations throughout the theatre building; peach, flattering to complexions and food, and warm gray. In areas where people will be seen ("being seen" is part of the thrill of theatre-going) peachy colors and warm incandescents will be used. In the auditorium, peach occurs in table cloths with a dark range of peachy orange to red in window hangings and upholstery. Walls, engaged columns and ceilings are medium to dark ranges of gray with peach accenting plaster ornamentation. House lighting is incandescent and low, with indirect lighting on engaged columns and individual table lights. In the public areas colors and lighting were chosen to promote the desired atmosphere. - The downstairs lobby is planned to be more casual with a subtle theatrical theme--colors are in the same family as those used throughout but are lighter and clearer. Very pale gray walls, peach and peachy orange accents are used. Lighting consists of incandescent ceiling cans supplemented by theatrical strip lights defining stairwells and concessions area. Track lighting focuses on the exhibit wall.

The lounge upstairs is more formal. Colors of peach and gray are rich & dark. Light levels are low with suspended incandescent lights providing major illumination of seating and food service.

Functional lighting to suit tasks is used in the backstage areas; with existing fluorescents re-used when possible in work areas. In the make-up area, traditional incandescent strip lights are used around mirrors. The other color that is

flattering to complexions is the complement of skin tones, turquoise.¹³ A blue-green version of turquoise defines the "green room" and is used on end walls and the mirror wall in the dressing room.

Another aspect of lighting is stage lighting, also a factor of the modular stage. In order to accommodate the stage in its various positions, a 4' grid of pipes is suspended from the ceiling. This grid could also be used for hanging scenery. The area the grid covers was determined by the angle from the actor's eye to the lighting instrument. Lights positioned so that this angle is 45° from the eye level of the actor standing at the front edge of the stage will avoid casting light on the spectators. The point at which the angle is 45° determines the distance the grid needs to extend into the audience area.¹⁴ Due to the relatively low ceiling and lack of space above for a catwalk, the lights will be serviced from an extension ladder or a small scaffold.

Furnishings, Finishes and Materials

Furnishings, finishes and materials for the public areas of the theatre were chosen for comfort, appropriateness to the task, and contribution to the desired image of the space.

The lobby/concessions area and the adjoining box office/manager office are similarly treated. The feeling is

¹³Ibid., p. 993.

¹⁴Elder, op. cit., p. 91.

light and casual with a theatrical image. Floor covering is Dow Bradische level loop carpet, "Kingsbridge" #309 Marble Gray, peach and charcoal. The dense, 100% acrylic fiber should resist heavy traffic. The carpet meets or exceeds federal flammability standards.

Much of the ceiling in the lobby/concessions area is new construction. Armstrong 6" linear strip acoustical ceiling was chosen in "concrete", a pale gray color.

Existing plaster walls are to be repaired and painted with Cooks Paint #422, a pale gray with a 69% reflectance factor. For accent the east wall of the box office and the manager's office are to be painted in peach, Cook's Paint #495, reflectance 37%.

Windows are treated with Roman shades to be made with a fabric similar to Pattern A1211 by the B. Berger Company, in "Blush", a 100% Dacron polyester.

General lighting for the lobby/concessions area is provided by incandescent ceiling recessed down lights. Special accent lighting promotes the theatrical theme with "Lyte-strips" by Lightolier defining the dropped ceiling over the concessions stand, with bare bulbs mounted on oxidized brass strips. Freestanding floor lamps are commercially available theatrical spot light look-alikes.

One wall of the lobby is an art exhibit wall. The ceiling is lowered to 8'-6" three feet out from the wall, separating viewing area from traffic lanes. Lightolier track

lighting spot lights the exhibit wall, which consists of 4'X8' Celotex panels covered with natural linen and mounted on the wall.

Furniture in the lobby/concessions area includes bench seating next to the entry and low tables and chairs in the concessions area. Kinetics furniture is specified for the benches and tables: #200/113, a 24"D X 65"W X 18"H bench; and #300/301, a 24"D X 24"W X 18"H end table are near the entry. Concessions stand tables are #400, 15"H X 30" in diameter. All furniture bases are "Kinkote 2-KK-09," gray baked-on enamel. Table tops are white plastic laminate. Upholstery on benches is Carnegie Fabrics "Jib Cloth," in #6260-67 "Sundown," a 100% cotton fabric, flame retardant and Zepel treated. Concessions chairs are standard director's chairs upholstered in Carnegie's Jib Cloth, half in "Sundown" and half in #6260-85, "Autumn." A round dual ash/waste receptacle by Smokador, #FG-2171 in white, is used. The receptacle is 11" in diameter X 26" H.

The lounge, being more formal than the lobby, is darker and more luxuriously furnished. Floor covering is a 55% wool/45% acrylic blend level loop carpet, "Dress Rehearsal," Brewen of California in #OR49, "Orkney Gray." The charcoal gray carpet passes flammability requirements.

Walls and ceilings in the lounge are repaired and painted with Cook's Paint #420, a gray with a reflectance of 46%. Deep rose is used for plaster ornaments and as an accent wall color, Cook Paint #301, reflectance 63%.

Incandescent downlights are supplemented with glass pendants clustered over seating groups and over the bar. Lightolier's "Crystal Dome Pendant" is polished brass with a 12"H X 9½" diameter clear ribbed dome shade.

Furniture in the lounge has a 1920's theme. A "Gatsby Bench" by Breuton Industries and Metropolitan Furniture Corporations, #541 "Sonora" chairs are specified. The bench is 60"W X 24"D X 17½"H with a recessed plinth base with radius corners in rich low bronze. Upholstery is button tufted in rose velveteen. The same fabric in a lighter shade covers the curved back Sonora chairs which are 31"D X 32"W X 29"H (back). Side tables are Stendig reproductions of a 1927 Eileen Gray adjustable height glass topped table with a polished brass tubular steel frame.

The audience/performance area contains elements of both the lobby and the lounge. The charcoal carpet extends from the lounge to cover the permanent risers. The lighter gray lobby carpet is used on lower level aisles and to top the moveable seating risers.

Walls of the auditorium are painted medium gray, Cooks Paint #418 with a reflectance of 30%. Ceilings are dark gray, #417 with a reflectance of only 13%. The plaster ornamentation and engaged column capitals are picked out in Cooks Paint #494 peach, with a 46% reflectance factor. Riser railings of the permanent seating area are faced with modesty panels of Formica plastic laminate in "Burgundy Suede."

Each column bay of the audience area has two sets of windows, one above the other. Each bay is hung with two vertical panels of fabric that cover windows from top to bottom. Each bay is hung with a different shade of wool fabric from red-orange to deep red.

Incandescent downlights recessed in the ceiling are supplemented by Lightolier's #40971 wall lamp on the engaged columns in polished chrome and brass. Lamps by Atelier International individually light tables.

Chairs for dining are by Rudd International, M.O. #4551 Armchair. The chair frames are laminated beech with white oak veneer. The chair backs are stained black and chairs are upholstered in four colors that correspond with the colors used for window hangings. Used theatre seats are suggested for the non-dinner area, to be refurbished and upholstered to continue the color pattern of the window hangings. Chairs are to be bolted in groups of four to the modular risers.

APPENDIX

INTERVIEW FORM: THEATRE VISITS

Contacts: Charles Kephart, Managing Director, and Tom Ward, Technical Director

Theatre Name: Salina Community Theatre

Location: Salina, Kansas

Type of theatre: community professional

General Organization of theatre:

Members are season ticket holders. Members elect board at the annual meeting. The board hires the manager and members serve on committees.

Decision makers, policy setters:

Board of Directors: 17 members including the president of Players and the president of the Guild

Who decides which plays to produce?

A play selection committee makes recommendations to the board. Selections must have the managing director's approval.

How are directors and technical staff chosen?

The paid managing director directs three plays and the musical, recommending guest directors for the shows he does not direct.

Who takes care of maintenance?

The city takes care of the grounds and public areas. The theatre takes care of stage/production areas, depending on volunteers.

Who takes care of general operation?

the paid managing director assisted by a part-time secretary and the technical director

How is the theatre funded?

% box office: almost all

% donations: none (almost)

% grants: none

other: shows other than regular season shows are produced as benefits for special projects

What types of plays are performed in a season?

two comedies, one musical, one drama, one misc.

Are there other types of activities besides producing plays?

yes

List:

rent-outs: meetings, musical events, etc.
city-owned arts commission office in building

How was financing acquired for this facility's construction?

The land was donated. The theatre group raised money to build, then gave the building to the city. The city rents out the facility, pays the bills, shovels the walk, and cleans the public areas.

Was it designed by an architect? Yes

Did the users have input in the design or planning? no

Does the theatre have stated goals or objectives? yes

List goals and objectives?

Long range: an addition to the building
(1) follow-up on studies done by an architectural committee
(2) raise money for an addition
1983 goal: increase membership from 2700 to 4000
Goals for the board: volunteer management program to attract and train volunteers; develop growth opportunities

What image does this theatre have in the community?

The theatre is popular as evidenced by sell-outs. Some people still look askance at "those theatre people."

Are there any areas in the theatre that you would design differently if you could do it over?

more set construction space with shop on the same level as the stage
change metal stairs to greenroom: too noisy
only allow for three in the orchestra pit
leave out floor trap
allow seating for 500

Are there any areas that work particularly well?

The proscenium is a good configuration for the types of shows that are produced.

They like the configuration of walls in the dressing/green room

Do you have any recommendations for MCT in the design of a new theatre?

Paint the ceiling black.

Allow plenty off-stage space.

What is the stage configuration of your theatre?

proscenium/open-with orchestra pit

Is it flexible (can it be changed?) ?

seating is not flexible.

can put a cover over the pit for extended forestage.

Does this configuration work well for the kinds of plays that you do?

yes

How did you decide which configuration to use?

The architect decided.

Would you make any changes in the design of the stage itself?

• The pit cover should connect calipers.

General comments:

The problems of the theatre have been over-emphasized. Very few theatres do not have problems. The problems with the design are our fault. We should have stood up to the architect and should have brought in theatre consultants . (Charles Kephart)

PHYSICAL CHECKLIST: THEATRE VISITSTheatre name: Salina Community TheatreLocation: Salina, Kansas

EXTERIOR

Description:

facing of textured concrete
 upper portion of facade is wood
 form reflects shape of stage

PARKING

Amount of space: plentyLocation in relation to building entry: behind building

ENTRY

Visibility: good from streetLocation in building: facing streetSignage: large sign on wood railroad ties facing streetAccessibility: near downtown; not handicapped accessible

PUBLIC AREAS

Traffic flow: direct connection from entry to seating

Arrangement of Lobby/Lounge/Entry:

The entry foyer opens, without barrier of any kind,
 directly into a walkway the surrounds the seating area and
 serves as lobby and lounge

Location of box office: adjacent to entry/open

Support facilities: restrooms and coats are off the lobby/
 walkway in circular "pods" visible on exterior

OFFICES

Location in building: two offices off greenroom

AUDIENCE AREA

Number accommodated: 300Fixed or flexible: fixed

Description:

Continental seating/horseshoe-sightline problems

STAGE

Configuration: open with calipersFixed or flexible: fixed

TECH BOOTH

Location: behind and above audience/access via ladder and
 catwalks from backstage

OFF-STAGE SPACE

Amount available: minimal, almost non-existent

Relationship to other backstage areas: It is the backstage.

Everything else is downstairs

ACTORS SPACES

Dressing room description:

There are male and female dressing rooms; costume storage and restroom in each

Greenroom description:

large, open
used for rehearsals, costume construction, properties construction, small set construction

Location of the two in relation to the stage: downstairs

TECH SPACES

SETS

Where built: on stage and directly off stage

Description of scene shop:

none

Location of scene shop and loading area in relation to stage:
directly off stage

PROPERTIES

Where built: off-stage and in greenroom

Where stored: a storage shed built on property

COSTUMES

Where built: in greenroom

Where stored: a storage shed built on property and dressing rooms

LIGHTS

Where stored: on catwalks above audience

GENERAL AVAILABILITY OF STORAGE

There is little storage in the building. A storage shed on the property meets needs adequately

SPECIFIC (ASSIGNED) STORAGE

Costumes: closets/ Props and Costumes: shed
Archives: office/ Misc.: greenroom, offices

DINNER

Accommodations: noneStorage: not applicablePrep: not applicable

REHEARSAL SPACE

greenroom and stage

MEETING SPACE

Stage/audience area and greenroom

INTERVIEW FORM: THEATRE VISITS

Contact: Paul Naylor, Technical Director

Theatre Name: Topeka Civic Theatre

Location: North Kansas Avenue, Topeka, Kansas

Type of theatre: community professional

General organization of theatre:

Out of 2,000 members, a board of directors is elected. The board hires an executive director, an artistic director, a technical director, and box office personnel. A custodian, two secretaries, and a book-keeper are also hired. TOT is a non-profit organization.

Decision-makers, policy setters:

the board, the executive director and others on staff

Who decides which plays to produce?

committees: the play selection committee presents a slate to the board, executive director and technical director

How are directors and technical staff chosen?

The artistic director or a visiting director directs plays.

Who takes care of maintenance?

the custodian

Who takes care of general operation?

executive director, who is a business manager whose responsibilities include advertising and public relations

How is the theatre funded?

% box office: most of financing

% donations: fund-raising

% grants: none

% other: special fundraising

What types of plays are done in a season?

comedy, drama, two musicals (one midwinter, one end season), classical

Are there other activities besides producing plays? yes
List:

jazz workshops, guest performances, i.e. opera singers,
children's seminars

How was financing acquired for this facility's construction?

donations from 1977-1979.
building purchased by TCT.
equipment donated

Was it designed by an architect?

membership includes an architect who volunteered
his time

Did the users have input in the design or planning?

Members did their own construction, which was
phased.

Does the theatre have stated goals or objectives? probably
List goals and objectives?

improvement of theatre in Topeka

What image does this theatre have in the community?

very high, very good
good newspaper publicity and TV coverage

Are there any areas in the theatre that you would design
differently if you could do it over?

more lighting capability
larger stage

Are there any areas that work particularly well?

good light and sound booth location
seating arrangement and sightlines 90% effective
can take out tables to expand stage

Do you have any recommendations for MCT for the design of
their new theatre?

should have theatre consultant
highest ceiling possible
entrances and exits for bringing in scenery
thrust cheapest stage form
grid system of 1 1/2 to 1 3/4 inch pipe for lights
if dinner, provide facilities for preparing meals

allow separate area for catering
allow separate area for bar

What is the stage configuration?

half proscenium/half thrust

Is it flexible? (can it be changed?)

thrust, semi-circle, in-the-round all possible

Does this configuration work well for the kinds of plays
that you do?

limited with box set:

proscenium is nine feet out from the back wall
thrust is thirteen feet out from the back wall
there is a 13 foot ceiling limit

How did you decide which configuration to use?

Three ground plans were presented within the
restriction of the main walls; chose the best

Would you make any changes in the design of the stage
itself?

10 feet deeper

PHYSICAL CHECKLIST: THEATRE VISITS

Theatre name: Topeka Civic Theatre

Location: North Kansas Avenue, Topeka, Kansas: warehouse district

EXTERIORDescription:

a warehouse: brick, stone, and concrete block
two attached boxcars

PARKING: gravel lot

Amount of space: minimal

Location in relation to building entry: adjacent, in front

ENTRY

Visibility: cannot see from road; signage helps; door is painted red; red and white canopy

Location in building: south side; north side of building is adjacent to street

Signage: large, elevated sign can be seen from river bridge and from the street

Accessibility: entry is up several stairs; there is a ramp

PUBLIC AREAS

Traffic flow: through lobby, past lounge, corridor past bar and through elevator shaft to audience area

Arrangement of lobby/lounge/entry: entry opens to lobby where posters are displayed, open (in same volume with) lounge that has tables and chairs

Support facilities: restrooms adjacent to lobby; bar and coffee shop on either side of corridor to audience area

OFFICES

Location in building: director and tech director office off greenroom upstairs; access through box office

AUDIENCE AREA

Number accommodated: 198

Fixed or flexible: semi-flexible

Description:

tables and chairs on levels around thrust stage
carpeted floor, dark brown paint on block, brick walls

STAGE

Configuration: modified thrustFixed or flexible: flexible

TECH BOOTH

Location: stage left, rear of auditorium

OFF-STAGE SPACE

Amount available: very small "turnaround" area in wingsRelationship to other backstage areas: greenroom upstairs
set construction downstairs

ACTORS' SPACES

Dressing room description:

open dressing tables in greenroom
dressing room has men's, women's showers; enclosed
area for changing

Greenroom description:

large, comfortable with wood floors and area rugs,
old furniture, natural light

Location of the two in relation to the stage:

must go down staircase to get to backstage
other stairs to box office
freight elevator to auditorium

TECH SPACES

SETS

Where built: downstairs, basement

Description of scene shop:

large area the size of entire audience area
all storage and lighting and electrical supplies
plenty of room

Location of scene shop in relation to stage:

Loading area: dock and garage door directly to stage
Access to scene shop through trapped floor in stage
or via freight elevator at rear entry of audience
area

PROPERTIES

Where built: scene shopWhere stored: scene shop- all furniture is borrowed so no
storage needed

COSTUMES

Where built: costume shop in basement, access via separate staircase from scene shop

Where stored: basement shop

LIGHTS

Where stored: scene shop

GENERAL AVAILABILITY OF STORAGE

scene shop and costume shop include storage
box car buffet has food storage
box car bar has food storage

SPECIFIC (ASSIGNED) STORAGE

a rented building for prop and furniture storage
see general storage

DINNER

Accommodations: separate boxcars added to building to accommodate dinner prep and cleanup in acoustical privacy

Storage: dishes and silverware storage for bar, coffee bar and buffet in box cars

Prep: clean-up, warm-up in kitchen in box car, also in bar and coffee bar

REHEARSAL SPACE

other buildings

MEETING SPACE

greenroom

QUESTIONNAIRE ONE: GOALS
RESULTS

The following is a list of questions as they were given to the 17 members of the board of directors of Manhattan Civic Theatre and 30 people actively involved in the theatre. 24 questionnaires were returned.

The questions being open-ended allowed people to give detailed, multi-level responses or no response at all. In compiling the results, key words and phrases or reasons given were extracted; those with similar meanings were grouped. The responses that received the greatest number of mentions was considered to be an important factor in determining goals for MCT. However, each response was considered in compiling the program. In listing the responses below totals are not given because they do not tally with the total number of questionnaires returned. The questionnaire was considered a guide for writing the program and a catalyst for discussion among members of Manhattan Civic Theatre.

(1) What is your definition of community (civic) theatre?

Key words and phrases in the responses:

number of responses:

Who:

10

* for and by community members
 (for people, by people, drawn
 from the community, local
 resources, local amateur talent,
 surrounding area, from the city)

Which members:

7

* any and all
 (age groups, members of the
 community, entire community)

1

*cross-section

1

*fluid group

1

*wide spectrum

Doing what?

4

* participating
 (on stage and backstage, many
 different capacities, every
 aspect of theatre)

4

* production as well as spec-
 tators

How:

5

* presenting plays

Why:

4

* entertainment outlet
 (enjoyment, fun, recreation)

2

* provide theatre outside
 university and other organi-
 zations

1

* to stimulate and preserve
 theatrical activities in the
 community

1

* to promote understanding and
 appreciation for theatre

1

* for meaningful, direct com-
 munication

1

* to promote awareness of com-
 munity resources

1

* to provide educational
 exposure to good theatre

(2) What is the mission of MCT as a community theatre?

Key words and phrases in the responses:

number of responses	Purpose:
9	* outlet for participation (as producers, as audience, actors and audience, goers and doers, means of self-expression, theatrical expression)
7	* to provide alternative enter- tainment
(5)	(high level, good quality, excellence)
(2)	(recreation)
5	* to make the community aware (of opportunities for everyone)
(1)	(exposure to plays not other- wise seen in this area)
(3)	(respect for arts, promotion of arts, cultural experiences)
4	* promote community involvement (pride, all members)
2	* increased value of community (culture and entertainment value, further state of the art)

(3) What kind of plays do you wish MCT would produce?

number of responses	Key Words:
9	* money makers (good family entertainment, audience draw, full house, make money and challenge staff, no heavies and avant garde)
7	* variety everyone can enjoy (continue present policy, balance to meet needs of varied population)
3	* no restrictions (only limits are physical res- trictions, available talent and audience, criteria of good theatre)
1	* plays that would not be seen by other groups
1	* emphasis on quality; dramatic events rather than strictly commercial endeavors
1	* no abstract or absurd

1 * key: variety and quality of workmanship

Kinds of Plays Listed:

6	* musicals
(1)	(large scale)
6	* conventional drama
(1)	(light)
(1)	(heavy)
5	* comedy
4	* mystery
2	* classical
2	* mystery
1	* children's
2	* innovative

(4) What kind of plays do you think MCT can do best?

number of responses

Key Words:

6	* potential for any
5	* small productions, limits of present location
4	* dependent on people involved
2	* conventional (successful)
2	* entertaining comedy or drama
2	* wide range (original to classics)
1	* forte ensemble playing
1	* "fluff" not enough
1	* one or two large musicals a year
1	* musicals and experimentals
1	* dramas and mysteries
1	* comedies, mysteries, and musicals

(5) Why does MCT need a new home?

number of responses

Reasons:

6	* space for larger productions
4	* space for larger audiences
5	* atmosphere of present facility (not good for dinner)
(2)	
4	* access (need place without stairs)
3	* storage space
5	* totally inadequate present facility (is not a home)

3	* need identity
2	* need visibility
2	* need permanence
2	* need location without columns
1	* present location physically limits creativity
1	* to better serve the needs of the community
1	* to insure the continuation of the organization
1	* to keep up with changes in the art
1	* to adapt to economic fluctuations
1	* to recruit new participants and attract new patrons
1	* to be adaptable for different productions

(6) What is the ideal seating capacity for MCT?

number of responses	Numbers:
5	*150-200
2	*250-300
1 each	*200-300; 200-500; 120-160; 200-250; 500; 125-150; 200; 150-175; 227 +/- 30
1	* changeable from 125 to 500
1	* flexible from 100 dinner to 200 regular
1	* 500, if Manhattan grows 10% in five years
	Comments:
1	* permanently set for dinner
2	* flexible

(7) What are other possible functions for MCT?
(Activities other than producing plays?)

number of responses	Functions:
8	* workshops, teaching (creative dramatics classes; make-up, acting, dialects workshops)
7	* concerts, musical events
6	* dance recitals and classes

7	* guests, out of town groups
3	* art exhibits
3	* forum for original work
5	* readings (play readings, reader's theatre)
2	* forum for improvisational or experimental work
3	* children's theatre and workshops
4	* hosting (conventions, community projects, community meetings)
2	* fund raising parties, special events
2	* rent-outs
3	* promotional arts, literature activities, awareness raising
1	* summer theatre
1	* theatre for special populations
1	* field trips
1	* child care on performance nights
1	* street theatre
1	* critiquing work
2	* Halloween make-up projects
1	* none
2	* rather expand production than spread too thin

(8) What human values can MCT promote?

number of responses	Values
7	* personal enrichment key words: self-assurance, self-esteem, self-discovery, freedom to experiment, forum for creativity, satisfaction, self-understanding, sensitivity and awareness
6	* group cooperation key words: teamwork, cohesion, patience, participation, involvement with people
5	* community key words: reflect current problems, mix ages, develop pride
3	* friendship, relationships
3	* all values
2	* none
1	* appreciation of art form

1	* humanism
1	* understanding of infinite variety of human behaviors
1	* predicting outcome of certain levels of behavior and thinking
1	* sense of humor

(9) What is your primary reason for involvement in MCT?

number of responses	Reason:
10	* use of skill/creative expression key words: playing piano, working tech, participating, guild, board, non-acting administration, being a doer, personal enrichment, vehicle of expression, viable art form, experience
9	* social key words: creative interaction, meet different people, interesting, exciting people, cast parties, personal contact in leisure activities, teamwork
12	* love theatre
3	* education
3	* fun key words: recreation, entertainment
1	* psychodrama
1	* "It's a different world"

(10) Is there a conflict between the ideas of audience-oriented theatre and production-oriented theatre? How would you compare the two?

number of responses	answer:	comparason:
5	yes	* audience-oriented are money-makers; shows are planned for maximum audience patronage; a majority of potential audiences want entertainment/ production oriented are innovative; esoteric; emphasis on actor-director interest
5	yes	* play is never complete without audience; production-oriented is not theatre

5	no	* balance needed; audiences need more exposure to greater variety/theatre people must realize old stand-bys are good fun
3	no	* no difference; shouldn't be; good production should encompass both
1	yes	* start with production, audience will follow

(11) What is the level of quality that MCT should strive to achieve?

number of responses	Response:
16	* highest possible, excellent, best
6	* high within limitations: actors, facility, budget, structure, volunteer limitations
1	* high is loaded community talent can be attracted
1	* realistic level not professional
1	* we can be as good as pros

(12) Is parking space a high priority?

number of responses	Response:
10	* unqualified yes
5	* not highest priority
	Considerations:
2	* safety
3	* accessibility/convenience
1	* to service patrons
1	* handicapped accessibility
1	* space for 75-100 cars
1	* must be within 1 1/2 blocks

(13) A site has not yet been chosen. What should be MCT's criteria in selecting a location?

number of responses	Considerations:
10	* accessibility to community
6	* adequate parking

6	* downtown
5	* visibility
3	* room for expansion, develop- ment
4	* relationship to area
2	* permanence
2	* cost
2	* desireable image
2	* safe neighborhood
1	* flexibility
1	* quiet
1	* property value
1	* accessible to handicapped/ elderly

(14) If you could choose, would you prefer to build a new building or adapt an existing one?

number of responses

Response:

9	* adapt considerations: quality and quantity of space
6	* build considerations:
(1)	all other factors equal arts center concept
1	* build in stages
7	* financial considerations should determine
(2)	{building cheaper}
(3)	{adapting cheaper}
1	* no preference

(15) Should the surrounding neighborhood be considered either in the:

{a} design of the structure?

{b} the activities that take place there?

number of responses

Responses: (design)

15	* yes considerations: blend in old area, space, access, parking, security, comfort
1	* not high priority

Responses: (activity)

14	* yes considerations: zoning, noise
----	--

1

* no

(16) What image should MCT project?

number of responses

Image:

5

* community oriented
key words: community involve-
ment, pride, concern for
betterment, broad-based

4

* high quality theatrical
productions

2

* creativity with profession-
alism

2

* pleasant atmosphere for
"night out"
key words: elegant, dinner
theatre, successful, first
class

1

* great vitality

1

* leader and advocate of ideals

1

* reliability

1

* acceptance

1

* variety

1

* modern, interesting, exciting,

1

* concern for and knowledge of
people

1

* entertainment excellence

(17) Can MCT balance the need for size (quantity) with
quality of the theatre's physical structure?

number of responses

Responses:

9

* yes

2

* don't know

2

* hope so

Considerations:

1

* phase construction

1

* prohibitive cost?

1

* limit size: 150-200

1

* balance size; provide for
growth

1

* acoustics

1

* quality is limited by lack
of size

2

* many compromises are possible
if advantages are offered

2

* others have done it

(18) There are three ways of approaching the issue of cost vs. quality:

- a. Do what is most cost-effective (i.e. invest in materials with high initial cost because in the long run it will be cheaper than replacement).
- b. Do what can be afforded now and change or add to later.
- c. Buy the best; settle for nothing less.

number of responses	Response:
8	* cost-effective comments: long run investment, replacement interferes with concentration on production
6	* do what can be afforded now comments: be sure future expansion is accommodated
2	* combination of cost-effective and buy only the best
2	* cost-effective for sound and lighting equipment, structural work, what can be afforded now for other areas (combination)
1	* buy only the best
1	* consider recycling

(19) Do you think of the new facility as a possible investment, bringing financial gain?

number of responses	Response:
11	* no comments: breaking even is OK, but should pay our own way; not the goal of the theatre to make money
8	* yes comments: rent facility, food and beverage sales, investment shelter for heavy contributor, investment for community

(20) Do you feel it is important to minimize maintenance or operating costs?

number of responses	Responses:
18	* yes

comments: don't sacrifice
hastily, keep in running order,
keep easy maintenance, budget
for maintenance, balance initial
costs against upkeep
* operational costs are always
increasing

1

(21) What should MCT's attitude be toward historic preservation?

number of responses

Responses:

13

* positive and encouraging
especially if adapting, supportive

1

* OK, but a new building is
better

1

* don't get involved, too
expensive

1

* no opinion

(22) Do you anticipate a change in the function or organization of MCT?

number of responses

Responses:

15

* yes

how:

(2)

* bigger and better

(2)

* slight, gradual

(4)

* need for manager

(1)

* year round production

(1)

* new budget procedures

(1)

* dinner theatre

(1)

* business rather than production
people on board

(2)

* paid production staff

(1)

* go into theatre business

5

* no

1

* ?

1

* function, no; organization,
yes

(23) Should MCT be static or dynamic as an organization?

number of responses

Response:

19

* dynamic

comments: no choice, flexible,
change appropriately as needs
change, same people should not
do everything

(24) When should MCT be in the new facility?

number of responses

Response:

7

* A.S.A.P.

comments: when appropriate
steps have been taken,
decision should not be hasty

3

* 1983-1984 season

1

* two years

1

* ?

QUESTIONNAIRE TWO: EVALUATION
RESULTS

At the August 26, 1982, MCT board meeting, I presented a design for Manhattan Civic Theatre using the Wareham Annex Ballroom as a site. Although the ballroom is not available to the group, the design was presented as a possible solution, with some ideas that could be used in any building and others presented to facilitate discussion. In order to gain concrete feedback, a questionnaire was handed to each member of the board present. Of twelve members present, six returned the finished questionnaires after the meeting. The results are given as averages of the rankings received.

The following is a list of objectives that this design for Manhattan Civic Theatre attempts to meet. Please rank the design for each objective on a scale of 1 to 4.

- 1: excellent (meets objective completely)
- 2: good (meets most aspects of the objective)
- 3: fair (meets some aspects of the objective)
- 4: poor (does not meet the objective)

OBJECTIVE *	RANK
1. to promote theatre for and by community members	<u>1.50</u>
2. to allow participation for spectators and for production people	<u>1.40</u>
3. to allow social interaction within groups	<u>1.80</u>
4. to allow individual creative expression	<u>1.25</u>
5. to provide entertainment	<u>1.00</u>
6. to provide cultural enrichment	<u>1.17</u>
7. to allow high quality theatre to take place	<u>1.00</u>
8. to provide an exciting/stimulating/vital atmosphere	<u>1.17</u>
9. to be visible to the community	<u>1.33</u>
10. to be comfortable	<u>1.50</u>
11. to be attractive	<u>1.17</u>
12. to be accessible to all theatre-goers	<u>1.80</u>
13. to provide an identity for MCT	<u>1.00</u>
14. to balance the needs of a production with the needs of the audience	<u>1.40</u>
15. to allow for efficient maintenance and operation	<u>1.50</u>
16. to provide acoustical and visual separation between production areas and audience areas	<u>1.60</u>
17. to allow functional and efficient traffic flow of people and things	<u>1.5</u>

18. to allow variety in types of plays produced	<u>1.00</u>
19. to allow future change	<u>1.83</u>
20. to allow activities other than theatre to take place	<u>1.80</u>
21. to preserve the character of the building	<u>1.00</u>
22. to provide adequate storage	<u>1.70</u>
23. to provide safety for people and things	<u>1.67</u>
24. to accommodate all the activities necessary to produce a play	<u>1.17</u>
25. to allow meetings and special events	<u>1.00</u>
26. to allow for adequate audience sizes	<u>1.50</u>

* Objectives are not listed in order of their priority.

EVALUATION CHECKLIST *

SPECIFICS

Date of visit: Feb. 1982
 Weather: sunny, rainy, cold, hot, damp, dry, snowy
 Building address: 421 Humboldt
 Building orientation: North
 Contact: Paul Shull
 owner, agent, other
 Rent per month: not available
 Annual rent: not available
 Total square footage: 7636 sq. ft.

Dimensions:	Height	Width	Depth	total sq. ft.
1st floor:	<u>22'</u>	<u>48'/26'</u>	<u>150'</u>	<u>4800/1300</u>
2nd floor:	<u>12'</u>	<u>48'</u>	<u>16'</u>	<u>768</u>
3rd floor:	<u>10'</u>	<u>48'</u>	<u>16'</u>	<u>768</u>

 Neighborhood: residential, commercial, manufacturing
 Building type: brownstone, storefront, loft, other: ballroom
 Building age: 54 years
 Previous use: ballroom, YMCA
 Neighbors: business, residence, occupied, vacant
 right: parking lot, left: parking lot, above: vacant
 below: health department and Jazz Educator's Assoc.
 Building's zoning designation: C4

* Eldon Elder, op. cit., p. 125.

NEIGHBORHOOD

On-the-street parking: parallel parking

Restrictions: one-way street, east

Nearest parking lot: municipal parking across the street,
building parking to east, courthouse parking to west

Streets and sidewalks: potholes, cracks, irregular, (good)

Street lights: (well-lit), adequate, poor

Garbage collection: irregular, regular, (none)

Nearest restaurants and pubs: Ric's Cafe- 3 blocks (evening)
The Wareham, The Chef, Burger King- day and early evening

Nearby shops, hardware stores, etc.: one block from all
downtown merchants

Special factors: urban renewal, (landmark building), city
owned, federal owned, other: county is buying

General impression: excellent location for access and
visibility

EXTERIOR CONDITIONS

Facing: board, (brick), brownstone, clapboard, other: _____

General condition: good

Steps: stone, wood, concrete, other: none

General condition: not applicable

Doors: wood, steel, metal, (glass), other: _____

Frames: wood, (steel), dimensions: 3'-6" X 7'-0" (?)

General condition: good

Roof access: ladder, stairs, trap door, other: do not know

Roof: new, (old), cracks, (leaks), bubbles

General condition: poor

Repairs needed: roof needs replacing; windows need replacing

General impression: visual appearance good

INTERIOR CONDITIONS

GENERAL

Stairs: wood, marble, concrete, metal, stone

open, enclosed width: _____

Corridors: wall construction: plaster on lathe

width: 5'-0"

general condition: clean only

Wall condition, general: good in interior wall; exterior walls and auditorium walls are water damaged

Floor material: wood, concrete, linoleum, other: _____

General condition: good

Ceiling material: asbestos (?) acoustical tile

General condition: poor, especially on exterior water damaged areas

Elevators: yes no

Basement: (material and condition unknown)

Structure: steel beams and columns, concrete floor slab

Repairs needed: restore plaster in auditorium and as needed, replace ceiling tile throughout, clean floors, repair/replace auditorium windows as needed

General Impression: damage is due to leaking roof and labor-intensive plaster repair is needed. Basically sound structure, with most areas in good condition

Security: doors: locks, gates, bars

windows: locks, gates, bars, none

Number of exits: two alarm system: yes, no

Emergency systems: sprinklers, extinguishers, fire alarm,
emergency lighting, none

Repairs needed: to bring up to code: add exits (fire
escapes, elevator), add emergency systems

Features to be enhanced or preserved: plaster ornamen-
tation in auditorium, ceiling height, floor on springs

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THE BASIC BUILDING CODE/1978**203.2 Use group A-1, theatres**

203.2.1 Use group A-1-A structures: This use group shall include all theatres and other buildings used primarily for theatrical or operatic performances and exhibitions, arranged with a raised stage, proscenium curtain, fixed or portable scenery loft, lights, motion picture booth, mechanical appliances or other theatrical accessories and equipment, and provided with fixed seats.

203.2.2 Use group A-1-B structures: This use group shall include all theatres without a stage and equipped with fixed seats used for motion picture performances.

203.3 Use group A-2 structures: This use group shall include all buildings and places of public assembly, without theatrical stage accessories, designed for use as dance halls, night clubs and for similar purposes including all rooms, lobbies and other spaces connected thereto with a common means of egress and entrance.

203.4 Use group A-3 structures: This use group shall include all buildings with or without an auditorium in which persons assemble for amusement, entertainment or recreation, and incidental motion picture, dramatic, theatrical or educational presentations, lectures, or other similar purposes without theatrical stage other than a raised platform; and principally used without permanent seating facilities, including art galleries, exhibition halls, museums, lecture halls, libraries, restaurants other than night clubs, and recreation centers; and buildings designed for other similar assembly purposes including passenger terminals.

203.5 Use group A-4 structures: This use group shall include all buildings used as churches, schools, colleges and for similar educational and religious purposes.

203.6 Use group A-5 structures: This use group shall include, grandstands, bleachers, coliseums, stadiums, drive-in theatres, tents and similar structures for outdoor assembly use, and shall comply with the provisions of this code for special uses and occupancies (see Article 4).

203.7 Regulations guide: The following listing contained in Table 203.7 is a guide to the principal requirements of this code applicable to use group A, assembly buildings. They are not necessarily the only, nor all, of the provisions with which compliance is required. Omission of reference to any provision shall not nullify any requirement of this code, nor exempt any structure from such requirement.

417.3 Theatre means of egress requirements

417.3.1 Types of exitways: The required exitways from every tier or floor of a theatre shall consist of grade exitway discharge doors, interior or exterior stairways or horizontal exits which provide direct access to a street, an exitway discharge court, or unobstructed passageway, hallway or lobby leading to a street or open public space. The number, location and construction of all means of egress facilities shall comply with the requirements of Article 6 and the applicable standards listed in Appendix B, except as herein specifically provided.

417.3.2 Number of stairways in auditorium: Each tier above the main floor of a theatre or other auditorium shall be provided with at least two (2) interior enclosed stairways which shall be located on opposite sides of the structure; except that enclosures shall not be required for stairs serving the first balcony only, or mezzanine thereunder. Such stairways shall discharge to a lobby on the main floor. Exitway stairways serving galleries above the balcony shall lead directly to the street or open public space as provided in Section 417.3.1.

417.3.3 Emergency means of egress from main floor of auditorium: In addition to the main floor entrance and exitway, emergency exitway discharge doors shall be provided on both sides of the auditorium which lead directly to a street, or through a passageway to the street independent of other exitways, or to an exitway discharge court as defined in this code.

417.3.4 Emergency means of egress from balconies and galleries: Emergency exitways shall be provided from both sides of each balcony and gallery with direct egress to the street, or to an independent passageway, or to an exitway discharge court. There shall not be communication from any portion of the building to the emergency exitway stairways except from the tier for which such exitway is exclusively intended.

417.3.5 Exitway discharge courts: All exitway discharge courts shall

be not less than six (6) feet wide for the first six hundred (600) persons to be accommodated or fraction thereof, and shall be increased one (1) foot in width for each additional two hundred and fifty (250) persons. Such courts shall extend sufficiently in length to include the side and rear emergency exitways from the auditorium.

417.3.6 Hardware: Latches or bolts on all means of egress doorways shall be of an approved self-releasing, panicproof type complying with Section 612.5.2.

417.3.7 Width of exitway doors: The maximum width of single exitway doors shall be forty-two (42) inches and the minimum width of double doorways shall be sixty (60) inches.

417.3.8 "Exit" lights: All exitway doors shall be marked with illuminated Exit signs complying with Section 623.0 which shall be kept lighted at all times during occupancy of the building.

417.4 Theatre seatings

417.4.1 Fixed seats: In all theatres and similar places of assembly except churches, stadiums and reviewing stands, individual fixed seats shall be provided with an average width of not less than twenty (20) inches and seats shall not be less than nineteen (19) inches wide. All seats shall be provided with separating arms and arranged in rows not less than thirty-two (32) inches apart, back to back, measured horizontally.

417.4.2 Number of seats: Aisles shall be provided so that not more than six (6) seats intervene between any seat and the aisle or aisles, except that the number of seats in a row shall not be limited when self-raising seats are provided which leave an unobstructed passage between rows of seats of not less than eighteen (18) inches in width leading to side aisles in which exitway doorways are located at not more than twenty-five (25) foot intervals to the exitway corridor or exitway discharge court.

417.4.3 Box seats: In boxes or loges with level floors, the seats need not be fastened when not more than fourteen (14) in number.

417.5 Theatre aisles

417.5.1 Longitudinal aisles: The width of longitudinal aisles at right angles to rows of seats and with seats on both sides of the aisle shall be not less than thirty-six (36) inches, increasing one-quarter ($\frac{1}{4}$) inch for every foot of length of aisle from its beginning to an exitway door, or to a cross aisle or between cross aisles. The width of the longitudinal aisles with banks of seats on one side only shall be not less than thirty (30) inches, increasing one-quarter ($\frac{1}{4}$) inch for each foot of length.

417.5.2 Cross aisles: When there are twenty-seven (27) or more rows of seats on the main floor of theatres, cross aisles shall be provided so that a block of seats shall not have more than twenty-two (22) rows. The

width of cross aisles shall be not less than the widest aisle with which they connect or the width of exitway which they serve; but a cross aisle shall not be less than forty-two (42) inches wide, or when bordering on means of entrance not less than forty-eight (48) inches wide. In balconies and galleries of theatres, one (1) or more cross aisles shall be provided when there are more than ten (10) rows of seats.

417.5.3 Gradient: Aisles shall not exceed a gradient of one and three-quarter ($1\frac{3}{4}$) inches per foot.

417.5.4 Balcony steps: Steps may be provided in balconies and galleries only, and such steps shall extend the full width of the aisle with treads and risers complying with Article 6, which shall be illuminated by lights on both sides or by a step light or otherwise to insure an intensity of not less than one (1) foot candle.

417.5.5 Railings: Metal or other approved noncombustible railings shall be provided on balconies and galleries as prescribed below.

1. At the fascia of boxes, balconies and galleries not less than thirty (30) inches in height; and not less than thirty-six (36) inches in height at the foot of steps;
2. along cross aisles not less than twenty-six (26) inches in height except where the backs of the seats along the front of the aisle project twenty-four (24) inches or more above the floor of the aisle; and
3. where seatings are arranged in successive tiers, and the height of rise between platforms exceeds eighteen (18) inches, not less than twenty-six (26) inches in height along the entire row of seats at the edge of the platform.

417.6 Theatre foyers

417.6.1 Capacity: In every theatre or similar place of public assembly, not including churches, for theatrical use with stage and scenery loft, a foyer or lobby shall be provided with a net floor area, exclusive of stairs or landings, of not less than one and one-half (1½) square feet for each occupant having access thereto. The use of foyers and lobbies and other available spaces for harboring occupants until seats become available shall not encroach upon the clear floor area herein prescribed or upon the required clear width of front exitways.

417.6.2 Egress: When the foyer is not directly connected to the public street through the main lobby, an unobstructed corridor or passage shall be provided which leads to and equals the required minimum width of main entrances and exitways. A mirror shall not be placed so as to give an appearance as a doorway, exit or passageway.

417.6.3 Gradient: The rear foyer shall be at the same level as the back of the auditorium and the means of egress leading therefrom shall not have a steeper gradient than one (1) foot in eight (8) feet.

417.6.4 Construction: The partitions separating the foyer from the

auditorium and other adjoining rooms and spaces of theatres shall be constructed of not less than two (2) hour fire-resistance rating, except that opening protectives may be constructed of noncombustible materials without fire-resistance rating.

417.6.5 Waiting spaces: Waiting spaces for harboring occupants shall be located only on the first or auditorium floor. Separate exitways in addition to the required theatre exitways shall be provided from the waiting space based on an occupancy of one (1) person for each three (3) square feet of waiting space area.

417.7 Theatre stage construction

417.7.1 Stage enclosure walls: Every stage hereafter erected or altered for theatrical performances which is equipped with portable or fixed scenery, lights and mechanical appliances, shall be enclosed on all sides with solid walls of not less than four (4) hour fire-resistance rating, extending continuously from foundation to at least four (4) feet above the roof. There shall not be window openings in such walls within six (6) feet of an interior lot line; and all permissible window openings shall be protected with three-quarter (¾) hour fire windows complying with Article 9.

417.7.2 Floor construction: The entire stage, except that portion used for the working of scenery, traps, and other mechanical apparatus for the presentation of a scene, and the roof over the stage shall be not less than three (3) hour fire-resistance rated construction. All openings through the stage floor shall be equipped with tight fitting, solid wood trap doors not less than three (3) inches in thickness or other materials of equal physical and fire-resistance rated properties.

417.7.3 Rigging loft: The rigging loft, fly galleries and pin rails shall be constructed of approved noncombustible materials.

417.7.4 Footlights and stage electrical equipment: Footlights and border lights shall be installed in troughs constructed of non-combustible materials. The switchboard shall be so located as to be readily accessible at all times and the storage or placing of stage equipment against it shall be prohibited.

417.7.5 Exterior doors: All required exitway discharge door openings to the outer air shall be protected with approved self-closing fire doors, complying with Article 9. All exterior openings which are located on the stage for means of egress or loading and unloading purposes which are likely to be open during occupancy of the theatre, shall be constructed with vestibules to prevent air draughts into the auditorium.

417.7.6 Proscenium wall: There shall not be other openings in the wall separating the stage from the auditorium except the main proscenium opening; two (2) doorways at the stage level, one (1) on each side thereof; and, where necessary, not more than two (2) doorways to the

musicians' pit from the space below the stage floor. Each such doorway shall not exceed twenty-one (21) square feet in area and shall be protected with approved automatic and self-closing fire door assemblies complying with Article 9 with a combined fire resistance rating of three (3) hours or the approved labeled equivalent. The distance between the top of the proscenium opening and the ceiling of the stage shall be not less than five (5) feet.

417.7.7 Proscenium curtain: The proscenium opening shall be protected with an automatic fire-resistant and smoke-tight curtain designed to resist an air pressure of not less than ten (10) pounds per square foot (psf) normal to its surface, both inward and outward. The curtain shall withstand a one-half (1/2) hour fire test at a temperature of not less than seventeen hundred (1700) degrees F. without the passage of flame. The curtain shall be operated by an automatic heat activated device to descend instantly and safely and to completely close the proscenium opening at a rate of temperature rise of fifteen (15) to twenty (20) degrees F per minute; and by an auxiliary operating device to permit prompt and immediate manual closing of the proscenium opening.

417.7.8 Scenery: All combustible materials used in sets and scenery shall be rendered flameresistant to comply with Article 9.

417.7.9 Stage ventilation: Metal or other approved noncombustible ventilators, equipped with movable shutters or sash shall be provided over the stage, constructed to open automatically and instantly by approved heat activated devices, with an aggregate clear area of opening not less than one-eighth (1/8) the area of the stage, except as otherwise provided in Section 417.2.2. Supplemental means shall be provided for manual operation of the ventilator.

417.8 Dressing and appurtenant rooms

417.8.1 Construction: Dressing rooms, scene docks, property rooms, work shops and store rooms and all compartments appurtenant to the stage shall be of fireproof (Type 1) construction and shall be separated from the stage and all other parts of the building by walls of not less than three (3) hour fire resistance rating. Such rooms shall not be placed immediately over or under the operating stage area.

417.8.2 Opening protectives: Openings other than to trunk rooms and the necessary doorways at stage level shall not connect such rooms with the stage, and such openings shall be protected with one and one-half (1 1/2) hour self-closing fire doors or the approved labeled equivalent complying with Article 9.

417.8.3 Dressing room and stage exitways: Each tier of dressing rooms shall be provided with at least two (2) means of egress, one (1) of which shall lead directly to an outdoor exitway.

closed in the stage area behind the proscenium wall. At least one approved exitway shall be provided from each side of the stage and from each side of the space under the stage, and from each fly gallery and from the gridiron to a street, exitway discharge court or passageway to a street. An iron ladder shall be provided from the gridiron to a scuttle in the stage roof.

417.9 Lighting

417.9.1 Exitways: During occupancy all exitways in places of assembly shall be lighted to comply with the requirements of Section 624.0.

417.9.2 Auditoriums: Aisles in auditoriums shall be provided with general illumination of not less than one-tenth (1/10) foot candles at the front row of seats and not less than two-tenths (2/10) foot candles at the last row of seats and the illumination shall be maintained throughout the showing of motion pictures or other projections.

417.9.3 Other places of public assembly: All areas and portions of buildings used as places of public assembly other than theatres shall be lighted by electric light to provide a general illumination of not less than one (1) foot candle.

417.9.4 Control: The lighting of exitways, aisles and auditoriums shall be controlled from a location inaccessible to unauthorized persons. Supplementary control shall be provided as specified in Section 405.3.4 in the motion picture projection room.

417.10 Fire protection and fire fighting equipment: Every theatre classified in the use group A-1 shall be equipped with a fire protection system complying with the requirements of Article 12 and as herein specified.

417.10.1 Fire suppression system: Approved automatic fire suppression systems complying with the provisions of Section 1202.0 shall be provided to protect all parts of the building except the auditorium, foyers and lobbies or in the immediate vicinity of automatic equipment or over dynamos and electric equipment. Such protection shall be provided over the stage, under the gridiron, under all fly galleries, in dressing rooms, over the proscenium opening on the stage side, under the stage, in all basements, cellars, work rooms, store rooms, property rooms and in toilet, lounge and smoking rooms.

417.10.2 Standpipes: Standpipe fire lines complying with the provisions of Section 1211.0 shall be provided with outlets and hose attachments; one (1) on each side of the auditorium in each tier; one (1) in each mezzanine; one (1) in each tier of dressing rooms; and protecting each property, store and work room.

417.10.3 First-aid standpipes: First-aid standpipes complying with the provisions of Section 1211.0 shall be provided on each side of the stage.

Such standpipes shall be not less than two and one-half (2½) inches in diameter, equipped with one and one-half (1½) inch hose and three-eighth (¾) inch nozzles.

417.10.4 Hose outlets: A sufficient quantity of hose shall be provided, equipped with regulation fire department couplings, nozzle and hose spanner, to reach all areas as specified in Article 12.

417.10.5 First-aid hand equipment: Approved portable two and one-half (2½) gallon fire extinguishers shall be provided and located as follows: two (2) on each tier or floor of the stage; one (1) immediately outside of the motion picture projection room; one (1) in each dressing room; and one (1) in each work, utility and storage room. Fire axes and fire hooks shall also be provided as directed by the fire official; and all fire extinguishers and fire tools shall be securely mounted on walls in plain view and readily accessible.

SECTION 607.0 TYPES AND LOCATION OF EXITWAYS

607.1 General: All approved exitways, including doorways, passageways, corridors, interior stairways, exterior stairways, moving stairways, smokeproof enclosures, ramps, horizontal exits, bridges, balconies, fire escapes and combinations thereof shall be arranged and constructed as provided in this code.

607.2 Arrangement: All required exitways shall be so located as to be discernable and accessible with unobstructed access thereto and so arranged as to lead directly to the street or to an area of refuge with supplemental means of egress that will not be obstructed or impaired by fire, smoke or other cause.

607.2.1 Exitway discharge: All exitways shall discharge directly at a public way or at a yard, court or open space of the required width and size to provide all occupants with a safe access to a public way.

607.3 Remote location: Whenever more than one (1) exitway is required from any room, space or floor of a building, they shall be placed as remote from each other as practicable, and shall be arranged to provide direct access in separate directions from any point in the area served.

607.4 Length of travel: Except as modified by provisions of Section 609.3 for buildings with one (1) exitway, all exitways shall be so located that the maximum length of exitway access travel, measured from the most remote point to an approved exitway along the natural and unobstructed line of travel shall not exceed the distances given in Table 607; except where the area is subdivided into rooms or compartments, and the egress travel in the room or compartment is not greater than fifty (50) feet [one hundred (100) ft. in use groups equipped with an automatic fire suppression system], the distance shall be measured from the exitway access entrance to the nearest exitway.

Table 607
LENGTH OF EXITWAY ACCESS TRAVEL (FT.)

Use group	Without fire suppression system	With fire suppression system
Assembly	150	200
Business	200	300
Factory and industrial	200	300
High hazard		75
Institutional	100	200
Mercantile	100	150
Residential	100	150
Storage, low hazard	300	200
Storage, moderate hazard	200	300

SECTION 608.0 CAPACITY OF EXITS

608.1 Unit of egress width: The unit of egress width for all approved types of means of egress parts and facilities shall be twenty-two (22) inches with a credit of one-half (1/2) unit for each twelve (12) inches width in addition to one (1) or more twenty-two (22) inch units. Fractions of a unit of width less than twelve (12) inches shall not be credited.

608.2 Design allowance for use groups: Except as may be specifically modified in Article 4, the design capacity per unit of egress width shall be computed in accordance with Table 608 for the specified use groups.

Table 608
CAPACITY PER UNIT EGRESS WIDTH

Use group	Without fire suppression system Number of occupants		With fire suppression system Number of occupants	
	Stairways	Doors, ramps and corridors	Stairways	Doors, ramps and corridors
Assembly	75	100	113	150
Business	60	100	90	150
Factory and industrial	60	100	90	150
High hazard			60	100
Institutional	22	30	33	45
Mercantile	60	100	90	150
Residential	75	100	113	150
Storage	60	100	90	150

Note: The main exit way of a bowling alley shall be of sufficient capacity to accommodate 50 per cent of the total occupant load, without regard to the number of aisles which it serves.

SECTION 609.0 NUMBER OF EXITWAYS

609.1 General: The following general requirements apply to buildings of all use groups. More restrictive requirements that may be provided in Article 4 for special uses and occupancies shall take precedence over the general provisions of this section.

SECTION 616.0 INTERIOR EXITWAY STAIRWAYS

616.1 Capacity: The capacity of stairways and doors per unit of exit width shall be computed in accordance with Section 608.0.

616.2 Minimum dimensions

616.2.1 Width: All interior exitway stairways shall be not less than forty-four (44) inches in width, except that such width may be reduced to thirty-six (36) inches when serving an occupancy load of fifty (50) or less.

616.2.2 Headroom: The minimum headroom in all parts of the stair enclosure shall be not less than six and two-thirds (6²/₃) feet measured

vertically from the tread nosing or from the floor surface of the landing or platform.

616.2.3 Restrictions: Stairways shall not reduce in width in the direction of exit travel. Projections into a stairway are prohibited except for handrails as indicated in Section 616.5.1 and for stairway stringers which may project not more than one and one-half (1¹/₂) inches.

616.3 Landings and platforms

616.3.1 Width: The least dimension of landings and platforms shall be not less than the required width of stairway.

616.3.2 Vertical rise: In all buildings a stairway shall not have a height of vertical rise of more than twelve (12) feet between landings and intermediate platforms.

616.4 Treads and risers

616.4.1 Minimum dimensions: The height of risers and width of treads in inches shall be as indicated in the following Table 616.

Table 616
TREAD AND RISER SIZE¹

Use group	Maximum riser	Minimum tread
Assembly and institutional ²	7½"	10"
One and two family dwellings	8¼"	9"
All others ²	8"	9"

Note 1. Within any flight, a three-sixteenths (3/16) inch maximum variation in riser height or tread width is permitted.

Note 2. Except in one and two family dwellings, tread and riser shall be so proportioned that the sum of two (2) risers plus one (1) tread, exclusive of nosing, is not less than twenty-four (24) nor more than twenty-five (25) inches.

616.4.2 Winders: Winders shall not be permitted in required exitway stairways except in one- and two-family dwellings and stairways serving a single dwelling unit and in ornamental stairways not required as an element of an exitway. Such winders shall have a tread width of not less than nine (9) inches at a point not more than twelve (12) inches from the side where the tread is narrower and the minimum tread width is not less than six (6) inches.

616.5 Stairway guards and handrails: Stairways shall have continuous guards and handrails on both sides, and in addition thereto, stairways more than eighty-eight (88) inches in required width shall have intermediate handrails dividing the stairway into portions not more than eighty-eight (88) inches wide. Stairways in one- and two-family dwellings may have one (1) handrail.

616.5.1 Handrail details: Handrails shall be provided according to the following requirements.

SECTION 621.0 FIRE ESCAPES

621.1 Where permitted: Fire escapes shall not be permitted as an element of a required means of egress except on existing buildings or structures when constructed in accordance with the approved rules and when more adequate exitway facilities cannot be provided. Fire escapes shall not provide more than fifty (50) per cent of the required exit capacity.

621.2 Location: When located on the front of the building and projecting beyond the building line, the lowest landing shall be not less than seven (7) or more than twelve (12) feet above grade, equipped with a counter-balanced stairway to the street. In alleyways and thoroughfares less than thirty (30) feet wide, the clearance under the lowest landing shall be not less than twelve (12) feet.

621.3 Construction: The fire escape shall be designed to support a live load of one hundred (100) pounds per square foot (psf), and shall be constructed of steel or other approved noncombustible materials. Fire escapes may be constructed of wood not less than two (2) inches thick on buildings of Type 4 construction.

621.3.1 Dimensions: Stairs shall be at least twenty-two (22) inches wide with risers not more and treads not less than eight (8) inches and landings at foot of stairs not less than forty (40) inches wide by thirty-six (36) inches long, located not more than eight (8) inches below the access window or door.

621.3.2 Opening protectives: Doors and windows along the fire escape shall be protected with three-quarter ($\frac{3}{4}$) hour fire resistance rated opening protectives.

CITY OF MANHATTAN SIGNAGE CODE

4-802

BUILDINGS, CONSTRUCTION: Signs

4-806c

4-802. PERMIT REQUIRED. Except as otherwise provided in Section 4-804 of this article, no sign shall be erected, or attached to, suspended from or supported on a building or structure until a permit for the same has been issued by the building inspector. No permit shall be issued by the building inspector until an application has been filed with him showing the plans and specifications, materials and details of conditions, location and method of anchoring the proposed sign. Forms for making such application shall be furnished by the city. (Code of 1961, Sec. 4-802)

4-803. PERMIT FEES. Any person, firm or corporation desiring a permit which is required under the provisions of this article shall at the time of receiving such permit pay to the city a fee as follows:

- a. For every thirty square feet (30 sq. ft.) or fraction thereof, one dollar (\$1);
 - b. Double faced signs for every thirty square feet (30 sq. ft.) or fraction thereof of second side, fifty cents (50¢);
 - c. Minimum charge for any sign, one dollar (\$1).
- (Code of 1961, Sec. 4-803)

4-804. EXEMPTION. No permit shall be required for a wall sign not more than ten square feet (10 sq. ft.) in area; nor for a projecting sign not exceeding two and one-half square feet (2½ sq. ft.) of display surface; nor for a ground sign advertising either the sale or rental of the premises upon which it is maintained when such sign does not exceed twenty-five square feet (25 sq. ft.) of display surface. However, the exemption from a permit shall not be construed as relieving the owner or person in control of the sign from erecting and maintaining the sign in a safe condition. (Code of 1961, Sec. 4-804)

4-805. ALTERATIONS. Rules and regulations pertaining to alteration of signs shall be as follows:

- a. Structural. No display sign shall be altered, rebuilt, enlarged, extended or relocated except in conformity with the provisions of this article.
- b. Movable Parts. The changing or movable parts of signs that are designed for changes, or the repainting of display matter shall not be deemed to be alterations within the meaning of this section.

(Code of 1961, Sec. 4-805)

4-806. WALL SIGNS. Wall signs used in the City of Manhattan shall be displayed as follows:

- a. Display signs placed against the exterior walls of buildings or structures shall not extend more than fifteen inches (15") out from the wall surface.
- b. Wall signs shall not extend beyond the top or ends of the wall surface on which they are placed.
- c. Wall signs exceeding forty square feet (40 sq. ft.) in area shall be of noncombustible material except that such signs placed against a building or structure which is of wood frame construction or which could be of wood frame construction under the ordinances of the city may be of combustible material. Cappings, decorations, lettering and moldings may be of combustible material on any wall sign.

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BUILDINGS, CONSTRUCTION: Signs

4-809

Wall signs shall be securely attached to the building or structure by means of metal anchors, bolts or expansion screws. No wood blocks or anchorage with wood used in connection with screws or nails shall be considered proper anchorage, except in the case of wall signs attached to buildings or structures with walls of wood. No wall sign shall be entirely supported by an unbraced parapet wall.

(Code of 1961, Sec. 4-806)

PROJECTING SIGNS. Rules and regulations pertaining to projecting signs shall be as follows:

No projecting sign shall project from the face of the building or structure over a street, alley or other public place beyond a line drawn perpendicularly upward from two feet (2') inside the curbline: Provided, That any projecting sign allowing thirteen feet (13') of open space below may project to a point that is a line drawn perpendicularly upward from the curbline.

A clear space of not less than nine feet (9') shall be provided below all parts of projecting signs.

Projecting signs exceeding two and one-half square feet (2½ sq. ft.) in area shall be made of noncombustible material except that decorations, facings and lettering set in or attached to noncombustible material may be of combustible material.

Projecting signs shall be securely attached to the building or structure by bolts, anchors, chains, rods or guys. No nails or staples shall be used to secure any projecting sign to a building or structure.

Code of 1961, Sec. 4-807)

08. GROUND SIGNS. Ground signs shall be constructed and displayed as follows:

Ground signs shall not exceed forty feet (40') in height above the ground on which they rest. The height shall be measured to the top of the sign.

Lighting reflectors may project beyond the top or face of the sign.

An open space at least thirty inches (30") high shall be maintained between the bottom of the sign and the ground: Provided, That necessary supports extending through such space, and the filling of such space with lattice or slats leaving at least fifty percent (50%) of the space open shall not be prohibited.

Within the fire limits, ground signs more than fifteen feet (15') high shall be made of noncombustible material, except that copplings, decorations, lettering and moldings may be of combustible material.

Code of 1961, Sec. 4-808)

09. ROOF SIGNS. Display of signs on top of buildings shall be as follows:

Display signs that are placed above or supported on the top of a building or structure shall be made of noncombustible material, except that copplings, decorations, lettering and moldings may be of combustible material.

An open space of not less than four feet (4') shall be maintained below the bottom of the sign, except for necessary vertical supports.

Code of 1961, Sec. 4-809)

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4-810

BUILDINGS, CONSTRUCTION: Signs

4-811

4-810. PROJECTING AND ROOF SIGNS. No sign shall be fastened, hung or suspended to a parapet wall. All roof signs and supports must be fastened to the main roof structure and of no greater weight than this article allows. Projecting signs must be supported by galvanized messenger cables not lighter than three-sixteenths inch (3/16") or its equivalent and where small signs are to be hung, smaller size cable may be used when authorized by the building inspector. Fastenings for such guys on the body of the sign shall be rigidly bolted to the structural frame within the sign, not simply to the sheet metal frame of same. Where signs exceed two hundred fifty pounds (250 lbs.) in weight or where angle of support is less than forty-five degrees (45°), at least one supporting guy shall be fastened to the building by means of one-half inch (½") or heavier bolt entirely through the building wall below the roof line with a sufficient steel plate inside of wall to prevent any undue strain on the wall. In lieu of through bolts, a structural frame may be placed on the roof of the building. Such frames must be securely fastened to the structural members of the roof, and must not exert any pressure on the wall. (Code of 1961, Sec. 4-810)

- 4-811. SLOW BURNING PLASTICS AND ILLUMINATION. Signs constructed of slow burning plastics shall be regulated by the following rules and regulations:
- Letters, decorations and facings of signs otherwise constructed of noncombustible material may be constructed of slow burning plastics.
 - The area of such display surface of plastic facings so employed in electric signs shall not exceed one hundred square feet (100 sq. ft.).
 - When plastic letters and decorations are employed in electric signs, the area of the display surface of facing occupied or covered by such letters and decorations shall not exceed the permissible area scheduled in the following table:

<u>Area of Display Surface of Sign in Square Feet</u>	<u>Area Permitted Covered or Occupied by Plastics in Square Feet</u>
Less than 100 square feet	100% of display surface area
100 square feet but less than 300 square feet	100 square feet plus 25% of difference between 100 and total area of display surface
300 square feet but less than 2,000 square feet	150 square feet plus 25% of difference between 100 and total area of display surface

- Slow burning plastics when used for the previous described purposes shall not burn faster than two and one-half inches (2½") per minute in six hundredths inch (.06") in thickness when tested in accordance with A. S. T. M. Standard Method Test for Flammability of plastic over fifty-six thousandths inch (.056") thickness.
 - Illuminating display signs illuminated with electricity or equipped in a way with electrical devices or appliances shall conform with respect to the wiring of such signs with the provisions of the ordinances of the city pertaining to electrical wiring. All work to be done by city licensed electricians.
- (Code of 1961, Sec. 4-811)

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BUILDINGS, CONSTRUCTION: Signs

4-814

4-812

- 4-812. LOCATION. No sign shall be so placed as to obstruct or interfere with any required exit way, free passage from one part of a roof to any other part thereof, with light and ventilation, or so as to obstruct any required opening in an exterior wall.
- (Code of 1961, Sec. 4-812)

- 4-813. DESIGN. The design of signs in the City of Manhattan shall be as follows:

- All signs shall be designed according to generally accepted engineering practice to withstand wind pressure specified in this section. The loads shall be distributed to the structural members of the building or structure in such a way that these members will not be overstressed.
- For the purpose of determining wind pressures, all signs shall be classified as either open or solid. Signs in which the projected area exposed to wind consists of seventy percent (70%) or more of the gross area as determined by the overall dimensions shall be classed as solid signs; those in which the projected exposed area is derived from open letters, figures, strips and structural framing members, the aggregate total area of which is less than seventy percent (70%) of the gross area so determined, shall be classed as open signs.
- All signs shall be designed and constructed to withstand wind pressures applied to the projected exposed area, allowing for wind in any direction, in accordance with the following table:

<u>Height from Ground to Top of Sign, in Feet</u>	<u>Wind Pressure, Pounds Per Square Foot</u>	
	<u>Solid Signs</u>	<u>Open Signs</u>
Less than 30	17	23
30 to 49	22	31
50 to 99	28	39
100 to 499	33	46

For ground signs thirty (30) to forty-nine feet (49') in height, the tabular values for heights of less than thirty feet (30') may be used.

(Code of 1961, Sec. 4-813)

- 4-814. PROHIBITED SIGNS. Rules and regulations prohibiting certain signs shall be as follows:
- a. No sign shall be erected, installed, placed, painted, projected, inscribed or otherwise depicted, which is of an obscene, indecent or unsightly character. No sign shall present or represent a thing that is of an offensive nature or unsightly manner. It is the intent and purpose of this section that all signs be attractive in appearance.
 - b. No sign hereafter erected or re-erected over or across any street or public thoroughfare or over or across any sidewalk or parkway shall not be hung in such a manner as to allow it to swing free.
 - c. No sign shall be allowed except on-site signs within the city, unless approved by the city commission.
- Ord. 2459, Sec. 2)

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FLEXIBLE VS FIXED STAGE AND SEATING
FOR A LOCAL CIVIC THEATRE

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AN ABSTRACT OF A MASTER'S REPORT

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ABSTRACT

Manhattan Civic Theatre is a community organization with the purpose of providing theatrical experience for the people of Manhattan, Kansas, both as audience and as participants. The group is presently searching for a permanent location. During the process of writing an architectural program with members of the theatre in the fall of 1981, the issue of audience-oriented theatre verses performance-oriented theatre arose. The physical point around which the controversy revolved was the stage/audience relationship.

In order to resolve the conflict and suggest a design solution, shared goals of the two viewpoints were explored. Both realized that audience as well as actors are essential to the success of the performance, contact being unique to live theatre. Also agreed upon was the desirability for a community theatre to produce a variety of types of plays to meet a range of people's tastes.

The options for design of the stage were evaluated against the criteria set by the program. Stages can be either enclosed or open. The enclosed proscenium stage was designed to facilitate the use of illusionistic scenery, the picture frame creating a barrier between actor and audience. Open stages, although requiring different acting styles and techniques of scenic design and lighting, do create a preferred atmosphere of intimacy. The limitation of all

stage forms is that each is suitable for a certain kind of play. An alternative is an adaptable or multi-form theatre, which is more successful if used as a theatre form in its own right, the director taking advantage of its creative and experimental possibilities. If a group cannot afford a building that meets all requirements of any of the stage forms or must use an existing large room, a simple modular arrangement, adaptable to several configurations is a good choice.

A solution for Manhattan Civic Theatre utilizes a former ballroom located on the second floor of a 1928 building in downtown Manhattan. The location's advantages are 22 foot high ceilings and a 48X45 foot clear span. Trade-offs include access and circulation problems for cast and audience. The space allows a fixed dinner seating area with a 30X40 foot modular stage/audience area that can be arranged to create an end stage, a thrust, and an arena, allowing the option of non-dinner theatre.