A SUMMER THEATRE
FOR NEW ENGLAND
A SUNRISE THEATRE
FOR NEW ENGLAND

Arch.
Thesis
1941
Dear Mr. MacCornack,

I herewith submit this thesis report as a partial fulfillment of the requirements for the degree of Master of Architecture.

"A Summer Theatre for New England."

Respectfully yours,

A. William Hajjar
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"Even the Best Playhouses have a temporary atmosphere."
N. Y. Times . . . . 3

"They paint scenery, make costumes, run errands."
N. Y. Times . . . . 6

"Box office - vital element in Summer Theatre."
N. Y. Times . . . . 7

"Students, they have a fine time."
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I wish to acknowledge the generous aid and helpful criticism given me by Professor Lawrence B. Anderson, Prof. Dean M. Fuller; Mr. Carl Reed, stage manager of the Ogunquit Playhouse; Mr. William Weyse, house manager of the Cambridge Playhouse; Mr. Richard Aldrich, manager of the Dennis Playhouse; Mr. Truman Smith, stage manager of the Nantucket Playhouse. The following were helpful by answering questionnaires: Town Hall Playhouse, Westboro, Massachusetts; Cambridge Summer Theatre, Cambridge, Massachusetts; Berkshire Playhouse, Stockbridge, Massachusetts; Mr. John Parker Samuels, The Sandwich Playhouse, Sandwich, Massachusetts; Cohasset Playhouse, Cohasset, Massachusetts; Holyoke Playhouse, Holyoke, Massachusetts; Mr. William R. Anderson, Portsmouth Summer Theatre.
INTRODUCTION

In recent years the summer theatre has spread across the Eastern shore line like wild-fire. Wherever there was a summer colony of a reasonable population, a theatrical enterprise has, at some time, been attempted. Barns, city halls, dance halls, roller skating rinks, any kind of a building that could house an audience, was converted into a theatre. A few were successful but the majority failed.

ORIGIN OF SUMMER THEATRE

The summer theatre of today has a very unfortunate origin. Usually some young actor is obsessed with the idea of running a theatre of his own. Together with a group of ambitious friends, and with little or no funds, they manage to clear out some deserted barn in an attempt to make a theatre out of it. The results are usually bad. The building was built for a barn and, frankly speaking, the performances smell like one.
In most cases this is a result not of the talent but of the building itself. From the actor's point of view the stage equipment is bad. The once believed unsound theory that amateurs need less secure equipment is no longer true. Even the most professional actor is unable to do his best work under such conditions, and an amateur, instead of improving, finds himself getting worse.
Curtain up—"Even the best of playhouses have a temporary atmosphere"
FAULTS

From the public's point of view the performance could have been much better. What can be expected? The scenery was poor, the auditorium was stuffy, sight lines were bad, and seats were uncomfortable. During intermission people found themselves out on the street because of lack of lounge facilities. All these factors added together result in an unsuccessful performance.

From the manager's point of view he could not afford anything better. He had to crowd seats into the auditorium in order to make both ends meet. On opening night, he finds that half the auditorium is occupied. The price of seats is reduced to a minimum in order to fill the auditorium and nothing is ever done to improve the public facilities or stage equipment.

Cornelia Otis Skinner, in her article in the magazine section of the New York Times, August 10, 1941, "It's Summer But Is It Theatre", writes - "a minimum few are excellent, the next few - a larger few - are mediocre, and many are definitely terrible" - "the public today is not going to be
satisfied with a production in which the scenery looks as if it had been run up by the village seamstress."

The summer theatre is unlike the professional city theatre in many respects. The season is very often only ten weeks long, during which time it must earn enough to pay for itself. The most successful playhouses are run on a visiting star basis. This means that the permanent theatre cast takes all the minor parts in a play while the stars take the leading roles. Usually a new play is presented weekly. At the same time one play is being presented, another is being rehearsed. The permanent cast consists of about eighteen to twenty students working mostly for experience and very little pay. Their functions overlap so that they might be building scenery as well as taking small parts in a play. This means that the actors have very little spare time and any time saving device would, for that reason, be gladly accepted. Back stage should be planned with the greatest possible flexibility and efficiency. If a set can be placed in its proper position in one operation instead of two, that extra time can be well spent elsewhere.
Apprentices—They paint scenery, make costumes, run errands.
Students—"They have a fine time; they have no worries or responsibilities; yet they can say they have been on the stage."
Sociability—"The holiday atmosphere that keeps Summer theatres from being quite professional is part of their charm."
In an attempt to solve the problem, the author sent out questionnaires to the different summer theatres throughout New England. The results of which are included in this report.

Observations were made during personal interviews with the managers of the Cohasset, Dennis, Provincetown, Nantucket, Ogunquit, and Chatham playhouses. With their help and with the answers received in the questionnaires, the author was able to arrive at a program which he hopes will lead to an answer to all the problems.
Dear Sir:

I am a graduate student at the Massachusetts Institute of Technology, studying for a Master's degree in Architecture. For my thesis subject I have chosen to study the summer theatre.

In recent years, due to good management and excellent performances the summer theatre has progressed greatly in establishing itself in the theatrical world. However, very little has been done to improve the working plan of the little theatre in order to facilitate productions.

I am hoping, that with your help, I shall be able to gather enough information to make possible a workable and yet an economical plan with maximum flexibility and at the same time answer all the requirements of those working back stage as well as those seated in the audience.

Realizing how valuable your time must be since you are in the midst of a season, I should appreciate any information which you are able to give in the enclosed questionnaire. It will be of great value to me in my study.

I am planning to visit as many summer theatres as possible and I shall try to make yours one of them.

Thank you kindly for your assistance and best wishes for a successful season.

Sincerely yours,

Mr. A. William Hajjar
The Graduate House
Mass. Inst. of Technology
Cambridge, Massachusetts
QUESTIONNAIRE

For your convenience, you will find that these questions simply require a "Yes" or "No" answer. Wherever possible suggestions, remarks or information will be considered most helpful.

1. Was the building in which you now perform originally built for a theatre? Yes __. No __. If not, what was its original use?

2. Do you have enough room back stage? Yes __. No __.

3. To what extent are your productions limited because of inadequate space? "One Set" plays? __. Light Operettas? __. Musical comedies? __. Regular three act plays? __.

4. Below are listed some of the requirements for back stage working space. Give approximate dimensions of these rooms in your theatre and desirable dimensions for the same spaces in a new theatre. If you have no provisions for these spaces as listed below, say "none" and state whether or not this space is necessary.

<table>
<thead>
<tr>
<th>Work space</th>
<th>Approx. Dimens. in your theatre</th>
<th>Desirable dimens.</th>
</tr>
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<tbody>
<tr>
<td>Floor space on stage</td>
<td>250 sq ft</td>
<td>1000 sq ft</td>
</tr>
<tr>
<td>Height of stage house</td>
<td>12 ft</td>
<td>30 ft</td>
</tr>
<tr>
<td>Dock space</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paint shop</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scenery storage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Costume design room</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Costume storage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Property room</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Furniture storage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size and number of private dressing rooms</td>
<td>8 x 10</td>
<td>15 x 3 ft</td>
</tr>
<tr>
<td>Size and number to use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>group dressing room for men</td>
<td>10 x 15</td>
<td>10 x 15</td>
</tr>
<tr>
<td>Size and number to use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>dressing room for women</td>
<td>10 x 15</td>
<td>10 x 15</td>
</tr>
<tr>
<td>Rehearsal room</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

List any other necessary space below.
5. Below is a list of stage equipment used in large theatre productions. If this equipment is necessary to a summer theatre, check it; if not, cross it out. Also add to the list any other required equipment.
   - Traps 3x, 4✓
   - Sliding stage 7x
   - Revolving stage 7x
   - Cyclorama 1x 4✓
   - Orchestra pit 6x, 1x
   - Gridiron system 1x 4✓

6. Would it be desirable to have outdoor performances an addition to the indoor auditorium using the same stage house for both as shown in diagram below?
   - Yes
   - No

   If any, list the disadvantages below

7. What is the capacity of your auditorium? 350 to 515

8. What do you think would be a more desirable number for your community? 500, 600

9. How long is your season? 5 to 12

10. Is the building used for any other purpose during the winter months? Yes 3, No 4. If so, for what?

11. About how many inhabitants in your community during the winter months? 400 to 300. Do you think this is a large enough number to support the building if it were used for movies during the winter months? Yes __, No __.

12. Are the seats removable in your auditorium? Yes __, No __.

13. During the summer months, is the auditorium put to any other use besides theatrical performances? Yes __, No __. If so, list them.
14. How many days a week do you give public performances?

15. If you do not perform six days a week, is it because (check)
   - your community is too small?
   - you are in need of another rehearsal stage?
   - there are not enough players?
   - insufficient room?
   - Other reasons?

16. Besides the auditorium, does your theatre have provisions for (check) dining?, light lunches? __, cocktail lounge? __, bowling? __. List any others

17. Would you say that a summer theatre could support such activities as light lunches and a cocktail lounge since so many people travel from 50 to 100 miles to attend a performance? Yes __. No __.

18. Would you say that it would be a good idea to have sleeping accommodations for those tourists who visit your theatre overnight? Yes __. No __.

19. How many players and other persons such as stage manager, director, etc. live in the community during the entire summer?
   Number of men? 10
   Women? 15

20. Would it be desirable to have living accommodations for these people as a part of the theatre scene? Yes __. No __.

THE PROGRAM:

"A theatre to fit the needs of any summer community along the New England coast, flexible enough so that the manager can start out building the smallest possible workable unit, and as the theatre becomes financially able it can be enlarged without destroying the workability of the plan."
A. Auditorium

The auditorium should seat five hundred people. The summer theatre should never grow beyond that point because it loses its intimacy. Any smaller number is financially almost impossible.

B. Lobby and Lounge

The lounge should be large enough to accommodate the majority of the audience during intermission.

1. Toilets and rest rooms for men and women.
2. Checking.
3. Offices for manager and secretary.
4. Ticket office and bookkeeping space.
5. Exhibition space.

C. Public Social Rooms (to be built later)

1. Coffee room to be used by the public during intermissions.
2. Kitchen facilities.
3. Green room.

D. The Stage House

1. (a) Gridiron system of staging.
   (b) Fly gallery.
   (c) Cyclorama
(d) Traps (to be installed at the discretion of the builder)

2. Proscenium.

It was decided by the author that the closed proscenium type stage would be the most satisfactory for this theatre. Other types such as prosceniumless stages, deep apron stages, three opening stages, etc. were much too expensive and were of an experimental nature.

E. Work Shop.

1. Electrician space.
2. Space for building scenery.
3. Paint room.
4. Dock and scenery storage.
5. Loading platform.

F. Property rooms.

1. Property room.
2. Property storage room.
3. Furniture storage space.
4. Costume design room.
5. Costume storage room.
G. Dressing rooms.
   1. One group dressing room for six men with toilet facilities.
   2. One group dressing room for six women with toilet facilities.
   3. From three to seven private dressing rooms (optional with the builder)

H. Rehearsal Room (optional with the builder)
   One rehearsal room as large as the effective stage area.

I. Living accommodations for actors (optional with the builder)
   1. Common living room.
   2. Common dining room.
   3. Sleeping accommodations for eight men.
   4. Sleeping accommodations for ten women.
   5. Group toilet facilities for men and women.
   7. Trunk storage space.
   8. Living suite for manager.
   9. Living suite for director.
THE SITE

It was observed by the author that the same problems were common to all theatres on the Eastern shore line. If a satisfactory solution could be arrived at for one theatre, the entire problem was solved. For purposes of completing the problem, the author chose a lot in Duxbury, Massachusetts, a typical eastern summer resort where the population is theatre minded. Since this is only one example of where the building might be located, the author felt that this particular site was of little importance. Observations show that the majority of the summer theatres are located on the coastline. It is suggested that lots of this type should be chosen because of their desirable characteristics.
WORKING DIAGRAM

service yard

storage

workshop

paint

elec.

furniture storage

props

prop storage

costume design

costume storage

rehearsal

dressing rms.

stage

actor's living

BACK STAGE PUBLIC

auditorium

ticket

manager

toilets

secretary

lobby

refreshments

green room
The Auditorium.

The auditorium was designed to accommodate five hundred seats, as previously stated, with provisions made for curtaining off a section of the auditorium when a smaller audience was anticipated.

The author felt that almost all summer theatres did not take the best advantage of the ocean view and any openness toward that view would be most desirable.

The diagrams on the following pages show how the design of the auditorium was arrived at. The best designed auditorium is the one which allows for the best view of the stage for the greatest number of seats.

The greater the angle of the walls of the auditorium, the greater the number of seats which fall outside the perfect sight line area. This was one of the factors which determined the straight walls in the auditorium.
AISLES

Aisles are of equal importance. The diagrams show how the different aisle arrangements add to or subtract from the seats within the perfect sight line area. It has been a common practice in most theatres to take sight lines from the second row of seats, but this method is not so satisfactory as sight lines taken from the first row of seats as shown in the diagram.
Diagram showing that the greater the angle of the auditorium, the greater the number of seats fall outside the perfect sight line area.
perfect sight line

SIDE SECTION AISLES

CENTER AISLE
DIAGRAMS SHOWING AISLES WHICH FALL IN PERFECT SIGHT LINE AREAS.
SEATS

The seats in the auditorium are placed forty-two inches back to back so that no person need rise from his seat to allow passage for others. Canvas covered seats are used in order to economize and still be comfortable.

EXITS

The exits in a summer theatre are very important. If, during intermission, a person feels that he has a long distance to walk in order to enjoy a cigarette, he usually remains in his seat. Theatrical experts claim that a good walk for the patrons of a theatre, during intermission, is of great importance. It relaxes the muscles, and he is better fit to enjoy the remainder of the performance. In this design, the exits are centrally located so that they are convenient to all persons. There is also a balcony at the rear of the theatre.
The lounge is located below the raised portion of the auditorium in order to economize on space. The toilets and check rooms are behind the exhibition screen in order to keep the lounge space free from a commercial atmosphere. One entire end of the lounge is of glass, taking the best advantage of the ocean view.

COFFEE ROOM AND ACTORS' DINING ROOM

It was possible in this particular design to combine the coffee room with the actors' dining room since both functions take place at different times of the day. A large table which is used for actors' dining could be put against the wall and used for coffee service by the public during intermission. At this time, the folding screen wall would be closed to divide the actors' living room from the coffee room.
staggered seats
sight lines from
row of seats.

sight lines
from first row
seats no stagger

all persons see
clear above head of
persons in row directly in front.
ACTORS' LIVING ROOM AND GREEN ROOM

Again, a double use for this room is possible. When it is used as a Green Room the screen is opened and both coffee room and living room are open to the public as a Green Room.

THE STAGE HOUSE

The stage house is 75' high, 45' deep, and 64' wide. The proscenium is 32' wide. These dimensions are considered minimum by Lee Simonson, an authority on stage equipment. The stage house is equipped with the grid 65' above the stage floor, allowing walking space above. A diagram on the following page shows how traps may be installed by excavating under the stage house. Space may be taken from the furniture storage room for a lift and staircase to the storage area below. Furniture will then be stored in the basement. The cyclorama is of canvas with curved metal rods at the top and bottom. When it is not in use the bottom is raised to the gridiron, leaving the cyclorama hanging in a folded position.
BASIC PLAN.

ADDITION OF SOCIAL ROOMS

MANAGER'S SUITES ADDITION

KITCHEN

COFFEE ROOM

ACTOR'S LIVING ABOVE

THEATRE

MANAGER

TOILETS

LOUNGE
PLAN OF STAGE HOUSE
WHEN TRAPS ARE NECESSARY

only change necessary
in the plan.

stage house

traps.

furniture
and scenery
storage

traps
above
from the gridiron. When it is down it is
stretched tightly to the floor at the bottom by
hooks in the floor. The switchboard is located
at the right wing of the stage where it is most
convenient to the electrician.

THE WORK SHOP

The work shop is a room where all stage sets
are made, furniture made or repaired, etc. The
raw materials are brought in from the loading
platform and stored in the storage space. From
this point it moves in straight line production.
Tables for cutting, framing, hardware, and canvasing are provided for. Drops are assembled next to
the paint shop, where they are painted and either
rolled out to the stage or stacked in the dock
space. Large flats are painted from the side
which faces the electrician space so that when
they are rolled on the stage the painted side is
facing the auditorium. This eliminates any turn-
ing of large, bulky sets which is usually cumber-
some.
The property room supplies all properties on a set such as furniture, lamps, books, draperies, etc. The property room is used for those properties which are essential to the play in progress. When a new play is presented, the old properties go into the property, furniture, and costume storage rooms and the properties essential to the new play are brought out.

**Furniture Storage Room**

This should be convenient, both to the property room and the work shop, so that if a chair needs to be repaired or repainted it is brought to the work shop and back to the property room ready for use.

**Costume Design Room**

This room should be convenient to the dressing rooms, property room, and costume storage room. Two sewing tables and one cutting table are the only furniture necessary.
DRESSING ROOMS

From the questionnaire, the author found that some managers required only two group dressing rooms, others private dressing rooms, while some required both. The diagrams on the following page show how it is possible to start out with only two group dressing rooms and add the private dressing rooms when the manager sees fit to do so. The same was true of the rehearsal room. This particular design makes provisions for seven private dressing rooms, each with two occupants, wardrobe space in each, and one shower for every two rooms. Two group dressing rooms with toilet facilities and wardrobe space for each.

ACTORS' LIVING QUARTERS

Most of the answers to the question of living quarters were positive, although the managers thought that they might be added at a later time. Four bedrooms for men and five for women was considered a reasonable number. Two occupants in
workshop

props

workshop

props
dressing

stage house

plan when only group dressing rooms are necessary

when private dressing are added

workshop

props
dressing

private dressing

stage house

workshop
group dressing

private dressing

rehearsal

stage house

when rehearsal room is added
each with bunk beds are in order to economize on space. Group toilet facilities are provided for on the opposite side of the corridor, with janitor's closet and trunk storage rooms. If at any time this living element should have to be larger, it would be a simple matter to extend the rooms beyond the manager's and director's suites below, keeping the upper portion on stilts. Manager's and director's suites are below the actors' living quarters, giving them a certain amount of privacy. The managers also felt that, at some time, living quarters for stars might be desirable. This would also be a relatively simple matter to continue the building out from the manager's suite, using the same bay spacing and the same suite arrangements.

PARKING

Parking areas should be provided for with any project of this kind. Three people per car is ample so that for an auditorium of five hundred, parking for one hundred and twenty-five is necessary. Separate parking for actors, manager, and director is close to their living quarters.
CONSTRUCTION

Auditorium

Since wood and stone are both native materials of the eastern coast, and since labor in these parts is familiar with these materials, the author felt that they could be used most economically. The auditorium is supported with laminated wood arches 14" on center and exposed to the interior. Wood planks 3" x 6" are spanned across the trusses which eliminate the use of joists. The roof is covered with waterproof canvas and the side walls are left exposed. The construction of the auditorium is simplified because of the elimination of the usual fan shaped walls. The stage house is covered on the exterior with vertical wood siding, and on the interior by transite for fireproofing purposes. Wood trusses are used in the work shop as well as the stage house because of the great uninterrupted spans. The interior walls throughout the rest of the building are unfinished. It was the hope of the designer to make the construction as inexpensive as possible. Concrete foundations are used throughout.
HEATING

No heating facilities are required since this theatre is not to be used in the winter. A hot water heater in the janitor's closet supplies the bathrooms and kitchen.

VENTILATING

The ventilation problem is solved by opening the entire back end of the auditorium and the louvers along the two side walls just below the canvas roof.

ACOUSTICS

The acoustics in an auditorium of this size is of little importance. The reflecting shield above the proscenium directs the sound toward the rear. The back wall of the auditorium is eliminated so that there are no reflecting sounds.
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