Design and technical direction of Buttonnose

Edward Joseph Thompson

The University of Montana

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THE DESIGN AND TECHNICAL DIRECTION OF BUTTONNOSE

by

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B.A., Montana State University, 1966

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Master of Arts

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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>II. ANALYSIS OF THE SCRIPT</td>
<td>13</td>
</tr>
<tr>
<td>III. DESIGN CONCEPTS</td>
<td>19</td>
</tr>
<tr>
<td>IV. THE PRODUCTION</td>
<td>28</td>
</tr>
<tr>
<td>V. SUMMARY</td>
<td>53</td>
</tr>
<tr>
<td>APPENDIX A</td>
<td>58</td>
</tr>
<tr>
<td>APPENDIX B</td>
<td>60</td>
</tr>
<tr>
<td>APPENDIX C</td>
<td>63</td>
</tr>
<tr>
<td>APPENDIX D</td>
<td>68</td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>70</td>
</tr>
<tr>
<td>DRAWINGS</td>
<td>73</td>
</tr>
</tbody>
</table>
CHAPTER I

INTRODUCTION

As part of the requirements for fulfilling the Master of Arts degree in Design and Technical Theater in the Drama Department at the University of Montana, the student must design and technical direct a major production which is presented to the public as a part of the department's regular season. He must then submit a full report, in thesis form, for evaluation by the Drama faculty. This is such a report on the design and technical direction of Buttonnose, a children's play written and directed by Richard F. Norquist, a graduate student at the University of Montana.

This thesis will cover the formation of design concepts by the director and designer, the translation of these verbal concepts into a visual design, the construction and rigging of the set, painting techniques used in realizing the design, the design and construction of the properties, the design of the sound and lighting, and the disposition and management of the equipment and personnel necessary to the operation of the technical equipment.

The direction of the play will be considered only to the extent that it affects the design concepts and/or the operation of the above mentioned elements. The make-up, costuming, or those properties scheduled as costume properties (see the following definitions) will
not be treated except as they specifically relate to the duties of the designer or technical director. These three fields, on the production of Buttonnose, were handled by the costumer.

This thesis is specifically intended for use by other students of the drama as reference material for design and technical direction problems in a theater situation such as the Masquer Theater (see discussion of this theater). It may also serve as a general reference source in all areas of general design and technical direction procedures, especially in respect to children's theater.

DEFINITIONS:

The **Director** is the person who shapes the production, and determines the over-all impression the play will make on the audience.

As the unifying force in the theater it is the director who initiates and controls all aspects of the presentation of the play. He analyzes the script, auditions actors, casts the roles, sets the basic floor plan for the sets, supervises the design of the costumes, scenery and lighting, instructs the cast in the meaning of the play, and conducts rehearsals during which he blocks out the action, assists the actor with his interpretation of his character and the reading of his lines, and finally polishes, times, and unifies the play into a cohesive whole. Everything about the interpretation and the performance of the play is his business.¹

It is the director's initial interpretation which serves as the unifying element around which all the various elements of the production must be designed.

The Scene Designer's job is to translate the director's interpretation of the play into a design concept, and then into physical scenery on the stage.

Design is the visual scheme of the production, including scenery, costumes, properties, and stage lighting. "Design" therefore consists of all the inanimate things which contribute to the visual effect of the performance. Stated in the broadest possible way, the function of the design is to assist the spectator's perception of the performance. It does this through various appeals to the eye calculated to strengthen both the intellectual and emotional content of the performance.²

The designer's first duty is to do a carefully scaled rendering for the director which shows the spatial relationships and color schemes, to be followed as accurately as possible in the finished setting on the stage. (See Appendix B.) Then he must draw floor plans for use by the director in assembling the scenery on the stage. (See drawing 2.) He also does working drawings of all scenery and properties to be constructed, so they will be built according to his specifications, and assembled properly on the stage.

The scene designer may also design the lighting, although this job is sometimes delegated to another individual. The lighting designer must design a light plot so that the proper instruments may be accurately located, angled and plugged by the technical director and the lighting technicians. (See drawings 22 and 23.)

The Technical Director is a relatively new position in the theater, and in the educational theater is primarily a supervisory position.

Technical director is in charge of all technical aspects of production. Plans and supervises construction and operation of all settings. Lights the productions. Prepares and executes scheme for scene change and alternation of productions. Plans and supervises all changes in permanent technical equipment. Is backstage efficiency engineer.  

The nearest equivalent in duties and responsibilities in the professional theater is the stage manager, although the technical director also assumes some of the duties of the producer and the professional scene designer.

As an educator, he recruits and trains students in the procedures and operation of equipment used in filling the various technical positions of the production. He also supervises the construction, rigging, and assembly of all scenery and lighting equipment, the assembly and operation of sound equipment, and the maintenance of the physical theater.

His most important duty of the production is, during the technical and dress rehearsals, the combining and eventual smooth operation of all the technical elements of scenery, properties, lighting, sound, and shifts. He trains the people necessary to operate these elements during the run of the production.

Properties "are in essence the design details of the over-all visual composition." Although a prop master is in charge of them, 

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the design and supervision of construction is the responsibility of
the scene designer. Typically, these props are divided into four or
five distinct categories, although in practice these categories may
overlap. **Hand props** "are objects carried to and from the stage by the
actors or used by them while on stage in the performance of established
stage business."5 **Trim props** (sometimes called set decoration)
"comprise all the elements not specifically used by the actor which
serve to fill in and complete or dress the set."6 They help in setting
the period, location and nationality desired. **Set props** (also called
floor props or scene props) "include all furniture and rugs which are
placed on the floor of the setting as well as the decorative objects
(lamps, vases, candelabra, etc.) which may rest on the various pieces
of furniture."7 **Costume props** "are those articles which are accessories
to a costume and under ordinary circumstances the responsibility of
creating, adapting or purchasing them is given to the costume designer."8
For example, items such as an umbrella, sash or watch would be classi­
fied as costume props. Sometimes special **visual effects** and **manual
sound effects** are considered as props, also.

5A. S. Gillette, *Stage Scenery: Its Construction and Rigging*,

6Parker and Smith, *op. cit.*, p. 220.

7Herbert Philippi, *Stagecraft and Scene Design*, (Boston:

8Elizabeth Montgomery, Sophie Devine and Margaret Harris,
*Designing and Making Stage Costumes by Motley*, (New York: Watson-
THE MASQUER THEATER:

Because of the peculiar nature of the Masquer Theater, the following material is presented as background for better understanding the discussion of the design concept presented in Chapters III, IV, and V. It is also hoped that this section might be useful as a general reference for other productions in the Masquer Theater or other similar facility.

The Masquer Theater is located on the ground floor of the Fine Arts Building, on the University of Montana campus. It is contained within a large room, approximately forty feet square, and with a ceiling height of ten feet. Dominating the interior of this room is a large post, two feet square, extending from the floor to the ceiling, and located approximately in the center of the room. Two large beams bisect the room, protruding downward from the ceiling about one foot, and meeting perpendicularly at the post. (See drawing 1.) These beams and the post effectively divide the room into four rectangular areas. One of these, the northeast corner, serves as the stage. The audience sits on two sides of the stage, at right angles to each other, facing the center of the stage, on a series of risers which gives each row of chairs an eight inch rise over the row in front of it. These two audience sections each occupy one of the rectangular areas of the room. The fourth area, diagonally opposite the stage, serves as an inner lobby where the audience may gather during intermissions, and where large pieces of scenery may be stored, if necessary.
The Masquer Theater, then, is a semi-arena theater, as distinguished from arena theater, in which the audience sits on all four sides, or proscenium theater, in which the audience sits on one side and looks, in effect, through a picture window at the action. In some ways it is similar to what James Hull Miller refers to as an "open stage." It is essentially a unified architectural area in which audience and actor alike are more aware of all being in the same large room than they are of physical separation between them. The beams provide a slight barrier, but the break with the ceiling is very small, and they are at a high angle over the heads of most of the audience. In addition, on the audience side, the beams are painted the same color as the rest of the auditorium, and thus tend to blend in, rather than stand out as do many proscenium arches painted in colors contrasting with the rest of the auditorium.

The center post provides more of a physical barrier than the beams do. However, as the beams are at a high angle overhead, the post is to the side of the bulk of the audience. Thus it serves more as a division between sections of the audience than as a barrier between audience and actor. Other physical features which offer a slight division are the change in flooring (the audience and the inner lobby are carpeted, while the stage area is cement covered with

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9James Hull Miller has written many articles on the open stage for Hub Electric Company, among which the most important are "The General Auditorium," and "Engineered Lighting and Control Equipment for Open Stage Theatres," catalogue no. 102, both available from Hub Electric Company, Chicago.
linoleum), and the fact that the ceiling over the stage and the stage area walls are painted black while the rest of the Masquer Theater is cream colored.

While these are elements which slightly divide the audience and actors, the unifying factors overwhelm them. The architectural unity of the facility has already been mentioned. This is increased through the fact that actors occasionally enter and leave stage through the inner lobby, passing on either side of the post, between the two sections of the audience. Sheer proximity is another important factor in the seating arrangement. The front rows of seats are so close that the audience members sitting in them have their feet on the edge of the stage, while the furthest rows back are within fifteen feet of the stage.

One final factor is more psychological than physical, but nevertheless important. That factor is the three-dimensionality of the performance. We are used to the two-dimensional presentation of the movies, television, and the proscenium theater. On the other hand, the three-dimensional relationship seems more conversational and personal, and thus members of the audience feel more in communication with the actors.

The physical arrangement of the stage itself is important in the production of a play. In the Masquer Theater it is a relatively small area, roughly twenty-three feet square. There are only two entrances to the stage. One, already mentioned, is through the inner lobby. The other is through a door in the upstage corner of
the stage area, and is normally masked by scenery or drapery. This is a standard sized door, and because of its location and construction, it is not architecturally and structurally feasible to enlarge it. This means that all large scenic units must be on stage at all times, either in view of the audience, or masked from view behind other scenery, or, must be brought on from the inner lobby, where they are stored while not in use.

The low ceiling height of the Masquer Theater greatly affects the lighting. Because the instruments are no more than ten feet above the floor, they are so close to the actors that normally only those with the widest angle of light output are of much use. In addition, the lighting must be done so the actor is adequately lit from two sides instead of one. This, coupled with the wide angle of light from the instruments, presents the problem that lights from one side of the stage may shine in the eyes of the audience on the other side. This requires additional precautions with and control over the lights.

Because of the arrangement of this theater, there are several techniques which differ from the standard proscenium presentation. The most obvious change is that the production must be designed and directed for an audience on two sides, in such a way that each section of the audience constantly feels it is being "played to."

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Because of the proximity to the audience, the scenery and the actions of the actors can be much more natural, and need be less stylized and exaggerated. On the other hand, this requires that they be done much more carefully and honestly.

The advantages and disadvantages of the Masquer Theater must be taken into consideration when designing for it. The advantages are related primarily to the form of the theater, and the associated relation to the audience.

1. Greater naturalism and honesty is possible in this theater than in the proscenium theater. This is true not only in directing and acting, but also in all phases of design. Some techniques which are valuable on the more distant proscenium stage are not usable at such a close range. For example, the use of fake or substitute items may often be impossible at this distance. Where the same techniques are used, they must be highly refined. Every nail head and brush stroke is visible to the audience, and consequently must be done with much more care.

2. A much greater wealth of detail is possible in the Masquer Theater. With the audience as close to the stage as it is, each little subtlety is clearly visible to all. This often stretches the designer and technicians' ingenuity to be able to select just the right item, line or shape, and then be able to reproduce it and still have it look like a fine piece of craftsmanship.

3. The audience involvement can be much greater in the Masquer Theater than on the proscenium stage. This is due primarily to the
two factors mentioned previously; the close proximity of the audience and the three-dimensionality of the actors. However, directing techniques may greatly add to this interaction between performer and audience. This can be carried as far as direct interchange between the two.

Many of the disadvantages of the Masquer Theater are the result of placing a theater in a room not originally intended to house such a facility. Other disadvantages are the natural and inevitable byproducts of the general form of this theater. One might say it is the cost one has to pay for such an intimate theater.

1. The wing\textsuperscript{11} and storage space is severely limited or non-existent. This greatly limits the amount and size of scenery that can be moved on and off stage, and stored when not in use. The only units which can go backstage must be able to pass through a standard sized door. Anything which is stored in the inner lobby must pass through a narrow passage between the post and the audience, or over the heads of nearby audience members. This, and the absence of any theatrical rigging system, complicates any major scene shift, especially where scenery would normally be flown.\textsuperscript{12}

2. The nearness of the audience which makes possible the greater naturalness of acting and design also presents added problems.

\textsuperscript{11}\textit{Wings: "Off-stage area out of audience sight lines."} Lounsbury, \textit{op. cit.}, p. 162.

\textsuperscript{12}\textit{Fly: "To elevate scenery by means of pulleys, ropes, or a counterweight system."} Lounsbury, \textit{op. cit.}, p. 60.
As indicated earlier, it requires that the craftsmanship be much more careful, and that detail be much more accurate. There are two pitfalls into which the designer may fall when applying detail. First, he may not adjust to this new situation and be too bold in his work, making it seem harsh or false. Or second, since detail is much more visible, it may lead to the temptation to apply detail to the extreme, so much so that it may become busy to the extent that it interferes with the main action, line, form or feeling that the designer as an artist is trying to convey.

3. The three-dimensionality of this form also presents problems, both for the performer and the designer. The performer must seem to act for both sections of the audience at the same time, or at the very least, divide his time equally between the two sections. For the designer, this means that all important elements of the scenery must be equally visible to all members of the audience. This is of particular importance with objects which are essentially two-dimensional. They must be placed in such a way that both halves of the audience are equally aware of their basic quality. More rarely, a three-dimensional object must seem to have essentially two-dimensional characteristics. Again, this requires that both halves of the audience see the object in the same manner.
CHAPTER II

ANALYSIS OF THE SCRIPT

Richard Norquist first got the idea for Suttonnose while visiting the ghost town of Garnet, Montana, with his two sons. Mr. Norquist indicated, during several conversations this writer had with him while planning the production, that he became intrigued with the idea of writing a children's play which would be set in a location familiar to people in this area, and with characters with which they were familiar, rather than setting it in some far-off country, and long ago.

Since the story is an original one, rather than an adaptation of one of the standard fairy tales, the plot outline is not a familiar one. It is necessary, then, to discuss it in more detail before proceeding further.

The play opens with Mr. and Mrs. Harrisbone and their young, teenage daughter, Roberta (Bobbie), walking through the foothills, laden down with a picnic basket and other appropriate tourist paraphernalia. They have been visiting ghost towns, but have become lost in taking a short cut back to their car. As they sit down to rest, a ghost town appears from nowhere. It is delapidated, and

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13Program note. See Appendix A.
obviously has not been occupied or visited for many years. Mr. and Mrs. Harrisbone leave to look at another part of the town, and as Bobbie sits down to sleep, the town miraculously springs to life. People gather and visit, waver in and out of the saloon, and prepare the town for the Fourth of July celebration coming up the following day.

Bobbie meets an old prospector, Cyclone, and his young partner, Jimmy X, who is about Bobbie's age. They all become good friends. Meanwhile, the outrageous villain, Black Pete, and his none-too-intelligent sidekick, Mule, plan to rob the bank. Bobbie and Jimmy overhear part of the plans while they are out in the forest at night looking for the gypsy camp. They find the camp and are captured, but Grandma Butterfly, the fortune teller, is so astounded by Bobbie's "magic," which she sees in her crystal ball while looking into Bobbie's modern life, that they adopt Bobbie into their band as Princess Buttonnose.

The next day Bobbie and Jimmy try to warn the community about the bank robbery plot, but Cyclone has gone back to the claim, and no one else will listen to them. The town is in the middle of its celebration, with a pie-eating contest and a kissing booth. Later the gypsies arrive in town.

Just after the townspeople receive word that the bank has been robbed, Cyclone strikes gold and returns to the town. They are about ready to string him up when Bobbie threatens the gypsies with
a stick of chewing gum in a silver wrapper, which she calls "Dream Food," saying it will make them fall asleep for a hundred years unless they help her. They hold the crowd at gunpoint while Bobbie identifies the robbers. While the crowd takes Black Pete and Mule to jail, Bobbie chews the gum and becomes drowsy. She falls asleep and the town changes back into a ghost town, as her parents re-enter. They tell her she has been asleep for about fifteen minutes.

The play is a fantasy, and the characters in it are based on stereotypes. Mr. and Mrs. Harrisbone are caricatures of the typical tourist, loaded down with much more equipment than they need. They are good parents, though a little impatient. Bobbie is a tomboy. Her primary function is to react to what is happening about her in the dream world. She only becomes actively involved in it at the very end. Jimmy is a perpetual Huck Finn. He likes to be outside and doing things, especially if they smack of adventure. He would probably hate Bobbie if she acted like a dainty girl, but since she is a tomboy, they get along well together.

The rest of the townspeople are stereotypes which could be taken from any grade B western. Black Pete is the epitome of the stock villain character, as his name so well indicates. The name of his sidekick, Mule, also indicates his most dominant characteristic—the level of his intelligence. Black Pete's girl friend, the saloon girl Big Lil, is properly played down for a children's fantasy. The mayor is a bumbling and officious civil servant, but nevertheless lovable. The other townspeople have hardly any development at all,
except for the very henpecked husband, George Wiggenbottom, and his presumptuous wife. These latter sequences are completely stereotyped, and may be found over and over again in many places.

Two other groups are very colorful caricatures. The two Indians, the last surviving members of the tribe of "Howling Apcees," are introduced to provide more indication of the locale (the wild west), and for their comedy and fantasy values. The gypsies, a band of "mangy cutthroats, pickpockets and cheaters," serve the same purpose. Their connection with the fantasy element is stronger, because of the general association with magic, mysticism, and the other black arts. The fortune telling scene at their camp especially underlines the fantasy element.

While the fantasy element is the strongest one in Buttonnose, there is a strong feeling of pure farce. Farce is basically a physical comedy, which gains its effect through vigorous activity and rather broad, easily understood jokes. 14 This is found almost continuously throughout the show, from the opening moments with the entrance of Mr. Harrisbone loaded like a pack mule, to the closing scenes with the gypsies robbing everyone in sight, going so far as taking items from the victims' hands without it being realized.

The Indians serve in a farcical capacity only, rather than developing the plot. Visually they look ridiculous, and vocally they communicate with a series of howls. Mule is the bungling

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14 Albright, et. al., op. cit., p. 9.
villain. Nothing he does ever turns out right. He walks into trees and people, babbling secrets to anyone who cares to listen. He is afraid of the dark, and especially of strange noises.

Mr. and Mrs. Wiggenbottom are classical characters of farce. She is overbearing, he is henpecked until hypnotized by the gypsies. The "mouse" then turns into a "lion," finally asserting himself. And, of course, no farce would be complete without the acme of all farce "bits," the pie in the face. In this case, it is Mrs. Wiggenbottom who gets it from her poor, henpecked husband.

The fun and farce is all innocent. In the end, no one suffers as a result of it, except Black Pete and Mule, who only get their just deserts. The humor is there for its own sake, which is to entertain the audience. It is not aimed at anyone. Even in the pie-eating (or throwing?) contest, everyone wins a prize.

As is generally the case in farce, we do not see any development in depth of any of the characters. The relationship between persons never changes during the play, nor does it need to, because we are watching them in a two-dimensional dream world. The important thing is to bring the audience into this dream world. One way this can be done, (and is called for in the script) is for contact between the audience and actors. In fact, the first entrance in the play is to be made through the auditorium. This requires that there be some way for the actors to get from the auditorium to the stage. This is no problem in the Masquer Theater, because of its homogenous structure.
There is much more of a problem with the scenery, especially with the scene shifts, necessary for the play. The script, as produced, requires six settings. The first is a hillside, possibly forested, but with no other structures on it. Then, without a pause, a ghost town must appear from nowhere. Then, still without a break in the action, the town must come to life. Next, after a scene break, the action shifts to a livery stable. From there, the children go out into the night forest, to a deserted spot. Finally, they move to the gypsy camp.
CHAPTER III

DESIGN CONCEPTS

The first step in designing the settings for a play is to read and examine the script. Preferably, this should be done two or three times before doing any further work; once just for a general impression, such as the audience might receive in viewing the production. Second, it should be read for details of the environment and culture such as locale, nationality, season, time of day, weather, socio-economic status, and other pertinent factors. Finally, the script should be studied for technical requirements, such as entrances, furniture demands, special effects, etc. All these items should be carefully noted, but the designer is not ready to begin with the actual design at this point.

One of the most important steps in the design process is the production conference, in which all the production staff meet to determine the approach to the play, and to begin the process of coordination of all the departments. It is here that the basic concept around which the play is built is reached. It is important that a unified approach is decided upon here, and followed through to the conclusion. The production of a play is a group activity, but the desired end product is an artistic whole, which can only be reached by a united and disciplined approach.
Initial discussions of *Buttonnose* were very general in nature, first discussing the very broad aspects of the play. The fantasy nature was noted, and it was immediately agreed that a realistic approach would not be appropriate for this production. The "magic" of the appearance of the ghost town, and its transformation into a living community would be one of the prime things which would give life to the play.

Besides being a fantasy, *Buttonnose* is a story of adventure, with the plot and building of tension dependent upon the physical action which occurs on the stage, rather than mental conflict. This calls for a degree of strength and vitality to the concept.

With these elements in mind, we next looked at the characters in search of our unifying concept. The director emphasized the fact that all were stereotypes or caricatures. He intended for all of them to be just the type that might be seen on any television western. The name "Black Pete" represents the archetype of all villains, in a rather comic sense. In line with this, we decided to play for the comic values within the play, rather than the melodramatic ones. This we also thought would be appropriate for a children's show, especially considering the recent complaints concerning sex and violence on television. In design, this meant primarily the elimination of any overt suggestion of anything the children's parents might consider objectionable. For instance, the sign "Red-Eye Saloon" was removed from that building, just allowing the audience to use its imagination if it wished.
The gypsies added further to the element of magic and mystery. The nighttime scene out in the woods especially should indicate the supernatural, with the sequence of the crystal ball and fortune telling. However, it should be a jovial and happy mysticism rather than a threatening one.

The Indians are in the script purely for their humor. They serve no purpose in the advancement of the plot, and very little in establishing the locale. In a production meeting, the director pointed out that the idea for the two came from the comic strip "Rick O'Shay." After examining the possibilities of this two-dimensional comic strip character, we decided that this was the key to the play. The design would be an attempt to bring a comic strip to life on the stage.

After deciding on the basic concept for the production, the director explained some of the techniques which he wanted to utilize in directing the play. The first was in regard to the actor-audience relationship. The very first entrance he wanted to come from the audience, and, if possible, even to have the actors wandering through the rows of seats. As it turned out, this proved to be a very good way of immediately involving the audience with the play. Again, in the nighttime scenes, the director had the actors wandering through the audience as though stumbling through the woods.

15"Rick O'Shay" is a nationally syndicated comic strip by Stan Lynde, a resident of Billings, Montana. He uses characters of the "wild west" and pungent western humor to turn this strip into effective social satire by playing on the foibles of his characters.
The director also indicated that he wanted to use a raised level for the gypsies to appear on, especially in the scene in which they come to town. At this preliminary meeting, it was agreed that we could probably put a platform or wide set of steps on the back of the gypsy wagon.

Another element about which the director often voiced concern was the size of the cast. The Masquer Theater stage is relatively small (about twenty-three feet square), and he originally planned to use a cast of twenty-five, all of whom appear on the stage at the same time. As it turned out, because of the size of the stage as well as casting problems, he was able to combine some of the smaller parts, and ended up with a cast of twenty. However, he still indicated worry over having enough room for his actors.

Taking this information, I began turning the verbal picture into a visual one, using the designer’s tools: line, shape, mass and color. The first step was to make preliminary sketches of the settings, concentrating on the line and shape. I began with the town set, as that would be the most important, both in terms of the amount of time it was visible and the amount of scenery involved. These sketches were done with an eye to developing the concept pictorially, and without regard to the shifting requirements. The construction, rigging, and moving of the scenery could be worked out once the basic concept was decided upon.

Line in comedy, and especially in farce, should be light and free. Horizontal lines give the feeling of peacefulness and rest
rather than violence or conflict. These were the emotions which seemed to dominate the script. However, a feeling of strength was also necessary to harmonize with the vitality of the action and the humor. The shape and mass should be solid, but not heavy. Color, of course, would have something to do with this, but at the present time it was being considered only subconsciously. The concept reached was of fairly solid scenery in which the line was the dominant element, with this line being painted or cartoonish rather than three-dimensional and realistic.

After making these sketches, I again conferred with the director. We made some minor adjustments in the relationships, and then these sketches became the basis of our operations. The town was envisioned as containing a saloon along the north edge of the stage (see drawing 2) and a jail and a feed store along the east. The saloon was on a low (six inch) board sidewalk, and had an overhanging roof supported by posts. This setting occupied only four to eight feet along the north and east walls of the stage, leaving the rest of the area free. We both felt that this would provide plenty of room for the director to utilize. In addition, the four scenes not played in the town would be played in this area. Act I, Sc. 1, the hillside would be played on a bare stage, with the addition perhaps of some tree trunks or shrubbery. Act I, Sc. 3, the stable, would primarily utilize set props such as a large crate for a table and nail kegs for chairs. Act I, Sc. 4, a bare forest, could be the same as the first scene. Act I, Sc. 5, the gypsy camp, would be the same as the preceding one,
with the addition of the gypsy wagon, a campfire, and assorted pieces of rough camp furniture for them to use.

At this point, we also began to discuss the shifting problems. One suggestion was to have the town setting laying down on the floor, and then have it somehow spring up into place. However, I felt that no matter how we tried to disguise it, it would still be obvious. In addition, the effect we were looking for was one of the town always being there, and just suddenly appearing, while this might give the impression of just arising. In addition, with no theatrical rigging facilities, I foresaw many problems in doing this, and even more so in rigging the necessary effects for the town coming to life.

The other method which seemed most likely to work was some sort of a curtain. We were both aware of the problems of using a "scrim" including the proper placement of lighting equipment, and the possibility of seeing through it before desired. On the other hand, we felt that a solid drapery opening would interfere with the smooth flow of the play and introduce an unwanted break in the action, at least psychologically if not physically. Since the effect, whatever it was to be, takes place early in the show, we decided to take a chance with the scrim effect. Even if it didn't work perfectly, it would only distract for a short period of time, and we felt the smoother transition would be worth the trouble.

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16 Scrim: "A loosely woven material somewhat resembling cheesecloth.... If light is shone behind scrim, it becomes transparent. If light is kept in front of scrim, it is opaque." Lounsbury, op. cit., p. 135.
We also had to determine how the scrim would be rigged before we could proceed with further details of the design. We wanted to divide it in two pieces which would hang just in front of the set for the town scene. This would have left the most possible room in front for the actors. However, the scrim we had available was one large piece, and too expensive to cut in half. This meant we would have one large drape cutting diagonally across the stage, dividing it roughly in half. Except for the first scene, this would be too small an acting area, so we decided the other scenes would have to be played in front of the town setting. Since they were all night scenes, we could play them all on a dark stage and use light to emphasize the portions we wanted, thus fading the town setting out to a certain extent.

With these decisions made, I could now proceed with the final steps of the design. I next made a color rendering of the set as it was to be during the performance. Besides utilizing the technical decisions we had made, the selection of color was important in this step. The basic color of the set would be that of wood, since the town would be of wood frame buildings. However, this still leaves a great deal of choice. The warmer, lighter colors are most appropriate for use in comedy and fantasy. We also had to be careful that the solid masses of the town walls did not appear too heavy.

Taking these factors into consideration, I decided on the warmer browns, that is, on the yellow and red end of the spectrum rather than the cooler or greyed browns. In addition, to emphasize
the fantasy element, we would use colors closer to the pure hues than might otherwise be found in wood.

After this step, we then called another production meeting of the entire staff, at which time the rendering was approved, and the color scheme was passed on to all the department heads. We decided that the colors used in the costumes and props should be close to the primaries, often in lighter tints. We also decided that, since the play was supposed to take place on the Fourth of July, that the accent colors would be red, white and blue. In the set this was found primarily in the bunting. In the costumes this ranged anywhere from a hair band to an entire dress.

During the actual construction and utilization of scenery and props, we found that we had to make several changes in the original design. Due primarily to lack of experience in this theater, the designer was not able to anticipate some of the problems or demands.

The script calls for Jimmy X to walk along a hitching rail, showing off to Bobbie. This rail was to be placed between the posts holding up the saloon roof. However, because of the lowness of the ceiling in the Masquer Theater, this roof would be only seven feet above the sidewalk. Because of this problem, the director decided to eliminate the rail, and have Jimmy walk along the edge of the sidewalk.

The gypsy wagon also proved to be a great obstacle. Because of the lack of wing space and the small access door, backstage access
would be very difficult. The entrance from the inner lobby, while sufficiently wide for humans, is not wide enough for bulky pieces of equipment. We could have gotten the wagon on and off by using only a two-dimensional cut-out, but this would have spoiled much of the illusion for the children. We decided, then, to abandon the wagon for a gypsy tent, which would be used in the camp scene and then set up in the town to indicate their "stage" while selling their elixir. To achieve the raised area the director wanted in this scene, we first toyed with some sort of loading dock in front of the feed store. In the end, however, we decided to extend the board sidewalk all the way under the jail and the feed store, as well as the saloon, and play the scene from this raised walk.
CHAPTER IV

THE PRODUCTION

This chapter will cover all the steps of actually putting the set, as designed, on the stage. For convenience in handling the material, I have broken the chapter into sections by specialization, such as construction, painting, props, etc. It is important to remember that these jobs proceed almost simultaneously, and in fact are often dependent upon one another. One of the first things a wise designer-technical director will do is to make out a schedule to follow in the construction of the set. Normally, this will start with the opening performance of the production and work backwards through dress rehearsals, technical rehearsals, and so on. It will often contain deadlines for many of the phases, such as the date when rehearsal props must be available, lights must be hung, etc. If work in the scene shop interferes with other activities in the area, such as classes or concerts in the auditorium, etc., the times when the shop will be unavailable for noisy construction must also be noted and the schedule adjusted accordingly.
CONSTRUCTION

The order in which the director needs units of the set for his rehearsals should be taken into consideration when beginning construction. In the case of Buttonnose, this also happened to be the order which was most convenient to build and set. The first to go up was the board sidewalk. The base for this consisted of standard platforms laid flat on the floor. (See drawing 4) The front 1'-6" of these platforms was to be the sidewalk, and was covered with wood planking. This consisted of any scraps of 1" lumber between 3" and 6" wide found in the shop. It was out from \( \frac{1}{4} \)" to \( \frac{1}{2} \)" longer than the 1'-6" width of the platform to be covered in order to give a lip around the sidewalk. Using a sabre saw to cut the line approximately straight gave enough unevenness to make the walk look interesting, but not enough to catch costumes or scrape ankles. In addition, several of the boards were split before they were nailed down to make the walk look more weathered and crude. One board was not nailed down, as it was to be used as part of the rigging in the scene where the town comes to life. (See drawing 16) The area behind the saloon was then filled with platforms so the floor would all appear to be on the same level. We were able to use all stock platforms except the one which filled the odd angle where the two sections of walk joined in the center. (See drawing 13)

The next units to go up were the walls of the saloon and the jail-feed store. (See drawings 5 and 6) By slightly revising some of the non-critical dimensions, we were able to take all the
flats from stock except for the small flats above and below the window of the saloon and the double-sided flat of the feed store. For example, the two flats on either side of the saloon window were each to be 2'-9" wide. However, these dimensions could vary by as much as 3" as long as the total of both flats was 5'-6". This would leave the over-all length of the wall and window the same, but just shift the window 3" one way or the other. The wall sections were then battened together with long pieces of 1" x 3" lumber across the back, nailed at the top and the bottom of the flats, and the cracks between the flats were dutchmanned on the front.

The double-sided flat was the only one which gave any difficulty. Since the audience would see both sides of it, both would have to be covered with muslin. This meant that standard framing techniques involving the placement of ¼" plywood blocks on the rear could not be used. The final solution, after some experimenting, was to half-lap and glue the corners, and to toe-nail in the toggles and corner braces. (See drawing 10)

The next step was to add thickness pieces around the doors and windows. Normally this would have been done by nailing lengths of 1" x 6" lumber along the openings. However, because we were striving for a two-dimensional, cartoonish effect, the thickness was limited to 1" x 2" lumber.

17Dutchnam: "Strip of muslin about 5 inches wide, used to cover the crack between two flats." Lounsbury, op. cit., p. 48. The dutchman is glued to the front of the flat.
Next we made and mounted the doors and window shutters. The door of the jail was a small flat taken from stock. (See drawing 11) The bat-wing saloon doors and the window shutters were both constructed in the same manner. (See drawing 7) They had a core of \( \frac{1}{2} '' \) AD plywood. On the front and back of this were strips of \( \frac{1}{4} '' \) plywood to give thickness, cut to the proper shape. On the side to be hinged, the back vertical member was a piece of 1'' x 3'' lumber instead of \( \frac{1}{2} '' \) plywood, to fasten the hinges to. The \( \frac{1}{4}'' \) plywood was then covered with overlapping strips of Upson board to give the effect of louvers. The jail door and the shutters were fastened with light narrow hinges, and the bat-wing doors with two-way spring hinges. The shutters were to be closed when the ghost town first appeared, so the outside was scuffed, scarred and scratched to show the ravages of time and weathering. When the town comes to life, the shutters open and remain open, so the inside looked new and clean.

The projecting roof of the saloon was the next unit to go up. The roof was made with standard flat procedures, except that it was in two irregular pieces and hinged so that it would appear to sag. (See drawing 8) The rigid half was nailed to the wall of the saloon at a height of 7'-0'' above the sidewalk. Posts of 4'' x 4'' lumber were then placed under it at the two front corners and at the center of the front edge. The east and center posts were fastened to the sidewalk with angle irons. The top of these posts was nailed to the roof. (See drawing 9) The west post was specially rigged. (See below)
Finally, 3" strips of Upson board were nailed vertically to the front and ends of the roof to give more thickness to it.

The last step of scenic construction was to put up the backing flats. Their purpose is to provide scenic units behind doors, windows, etc., and to prevent the audience from seeing backstage. First, at the audience end of the large walls, flats were nailed from the town wall to the back wall of the theater, so the audience could not see behind them. At the door and window openings, flats were nailed perpendicular to the wall to strengthen it at those points, and to appear as interior walls of the building. Along the wall of the theater behind the saloon, another wall of flats was built to indicate the back wall of the saloon. The black drapes hanging along the back wall behind the jail window made it appear as if it were very dark inside. The final piece of backing was three flats behind the opening between buildings, representing the sky.

RIGGING

Most of the decisions about rigging the special effects were made before any of the construction began, and the units were rigged as they were built. Because of the special nature of the process, they are treated in a special section.

The most difficult problem was the scrim. One proposed solution was some sort of a curtain rod or track. However, the scrim usually works best when it is stretched taut, so the decision was to use a roll-drop curtain. (See drawing 17) The scrim did not stretch all
the way across the stage, so curtains were added at each side of the scrim. These were pulled back as the scrim rolled up. These were originally to have shrubbery painted on them to represent a forested hillside, but due to lack of time this painting never got done.

The other major rigging job was to make the ghost town come to life. This was done through movement of various pieces of the set itself. One of the most effective was the sagging of the saloon roof. (See drawing 16) A slot was cut in the bottom of the saloon wall just big enough so the loose board in the board sidewalk (mentioned above) could slide through it. When the post was attached at the west corner of the roof, the top was hinged to the roof at the back of the post, and the bottom was hinged to the sidewalk board at the front of the post. A handle was attached to the board behind the wall so it could be pushed and pulled back and forth. When the board was pushed all the way out, the post was vertical and the roof was level. When the board was pulled back, the post leaned from a point just touching the saloon wall, out to the roof. This pulled the roof down and in and made it appear to sag.

The shutters, mentioned above, were a relatively simple matter. (See drawing 15) Two 70# test nylon lines were tied to the top of the shutter at the center edge. One line went through a hole in the flat at the center of the window, and then back to the control point. Pulling this line would close the window. The other line ran through a hole in the flat at a distance equal to one shutter's width away from the window, and then back to the control point. Pulling this line
would open the window. The black lines were high enough under the roof so that very little light was on them, and thus they could hardly be seen.

Two signs were also rigged to change. (See drawing 15) The large "Sweetwater" sign was mounted on the roof of the saloon. It consisted of a flat with a piece of Upson board half the height of the sign dutchmanned to it across the center. This cloth dutchman also acted as a hinge. A line was fastened to the middle of the free side of the Upson so that it could be flipped up or down. On the bottom half of the flat and the bottom of the Upson the sign was painted as if it were old and weather beaten. On the top of the flat and Upson the identical sign was painted, except that it was brand new and shiny. Thus, by flipping the sign at the proper time, the sign would seem to change.

The sign on the feed store was also rigged to move. In this case, the sign was loosely bolted at one end and the other end was left free to swing at will. Another line was fastened to this free end and passed through a hole in the flat, near the top and directly above the sign, and then down to the control point. (See drawing 15) Thus, when the set was first seen, the sign appeared to be hanging loose, about to fall off. It then swung up into the position it would have been in when it was new.

The final rigging job was a rocking chair which had to appear to rock by itself. At first a line was tied to the back of the rocker and run through a hole in the bottom of the flat behind it. However,
this tended to pull the chair straight back rather than down. Instead,
the line was tied to the back, near the top of the chair, and then
run straight back to the flat. The chair was so close to the flat
that very few people were able to see the black thread.

PAINTING

The painting of the set was one of the keys to translating the
design concept into reality on the stage. The method used in indicating
the two-dimensionality and cartoonishness of the set was, for the most
part, as follows: The entire set went through several different phases.
First, as each section was finished, it was given a base coat of a
neutral brown, made up primarily of scraps of paint from a preceding
show. This served at least two functions. Where a new flat was used,
the muslin covering was loose and porous. The base coat stretches
the muslin and fills up the pores. In the case of older flats, the
base coat covered previous coats so that all the flats started out
the same color. This was necessary because casein, a water-base paint,
sometimes bleeds through.18

Next, the desired color of the final coat was painted on. In
normal stage painting techniques, the procedure is to make the brush
strokes in random directions so no definite pattern is obvious.

18Bleed: "If one coat of paint fails to cover another, the
first coat is said to bleed through....Scrubbing with a paintbrush
will cause a water-base undercoat to bleed." Lounsbury, op. cit.,
p. 13.
However, in this case we were trying to imitate rough lumber, so all the brush strokes were done in a horizontal direction, as if following the grain of the wood. The colors chosen for this were from the reddish and yellowish browns. This was done, as stated in the previous chapter, to provide warmth and lightness to the set.

Next came the critical portions of the painting. The production concept of the play called for a cartoonlike setting. To achieve this a flat, painted surface, rather than a three-dimensional, realistic surface was desired. All trim, door and window frames, etc., were painted on the flat surface, rather than built up by adding additional lumber. The frames were first outlined and then painted on. They were rather narrow: 3" instead of the common 4" - 6". The large doors on the feed store were also outlined. These doors were a particularly good example of the painted cartoon effect desired. The doors were wanted there for their pictorial value. They were not practical, so they were just painted on the wall.

Next, the individual boards were drawn on the walls. This was done with chalk and long pieces of lumber of various widths which were used as straightedges. By lining up one edge of the lumber with the last line drawn the lines remained horizontal. By constantly changing the size of the lumber used, the painted board sizes were

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Practical: "Any prop or piece of scenery capable of being used is said to be practical; e.g., windows and doors that open, fireplaces with effects, switches on walls, etc." Lounsbury, op. cit., p. 120.
uneven, making the buildings appear of crude or rough workmanship. All the lumber was drawn on horizontally, except for the planking of the doors, which was vertical. The braces of the doors were also outlined at this time.

The tedious but important process of lining was the next job. First, all cracks, such as those between boards, were drawn on the surface with black paint and a \( \frac{1}{4} \)" lining brush. After these "shadow" lines had dried, the "highlights" were added. The highlights indicate the place on the object which reflects the greatest amount of light. In the case of a flat surface like a board, this is the edge closest to the source of light. For horizontal boards this is the top edge, just under the shadow of the crack. The process of lining was repeated for the highlights. For the vertical boards, the same theory was used. In this case, the edge closest to the light source was the edge closest to the audience. This meant the left edge on the saloon wall and the right edge on the jail-feed store wall. Wood which "stuck out" from the surface was treated in the same way. A highlight was drawn on the edge closest to the light, and a shadow on the edge away from the light. The width of the shadow is one way of indicating the thickness of the board. The shadow lines were again about \( \frac{1}{4} \)".

The stable scene was done separately, but with similar techniques. An entire scene was drawn on the back of the double-sided flat and the special backing for this scene. It included a window, a wall with horse tackle hanging on it, a stall with a hay loft over it, and a feed sack in the corner.
After the lining was completed, the texturing of the surfaces was done. For this, the technique known as dry brushing was used. A wider brush (3" to 4") is just barely dipped into the paint. Most of the paint is then brushed out on the side of the paint can. The bristles are then lightly brushed over the surface to be textured, so the brush leaves very fine lines. This technique is often used for large areas of shadow in the stable setting, such as in the window and the deeper recesses of the stall. The shadow was indicated by using several light coats of dry brushing at right angles to each other, until the proper degree of darkness was reached.

**PROPERTIES**

The scenery described above is very important in fulfilling the design concept. However, the other elements of the production are also important, and must not be overlooked. Properties rank high on this list of other elements. The same ideas and techniques used in achieving the design are used for the properties. A full list of properties for Buttonnose will be found in Appendix C, but a discussion of particular items and techniques follows.

The set props are of particular importance, because change of location from the town to another locale was indicated by their use. The stable scene (Act I, Sc. 3), besides using a small section of wall as background, contained a large crate used as a table, and a nail keg for a chair. Practically speaking, the search for items
such as nail kegs should begin early, as they are now relatively
scarce and may take a great deal of time to locate unless they
already exist in the theater's prop storage or other known location.

The gypsy scene (Act I, Sc. 5) was indicated by their tent,
a campfire, a stool and a trunk. The first two required special
construction to meet the requirements of the production. The
techniques used will be dealt with later.

The use of hand props required several decisions concerning their
general nature. In a proscenium production, the props are normally
exaggerated slightly in size and style. Because the audience is much
closer in the Masquer Theater, the exaggeration in size is not neces­
sary for easy visibility. It was decided, then, to make most of the
props realistic in size, and to use exaggeration for its comic
possibilities. For example, the script states that when Mr. Harrisbone
examines an antique bottle, "he pulls from his poc:et a small
booklet." Since the part was being played for its comic aspects
(he was loaded down with a picnic basket, camp chairs, camera, and
binoculars), he was given a full unabridged dictionary with the false
cover of an antique book. Props can also be exaggerated by making
them smaller. When the sheriff's girl friend asks him to carry her
parcel, it is a very tiny one, about the size of a small book, again
making a comic statement because of the incongruity.

\(^{20}\) Buttonnose, Act I, Sc. 1, p. 5
Procurement of the props for the production was primarily a process of selecting what was needed from the prop department's storage area. Most of what was needed is fairly ordinary and required, mainly, that care be taken that the prop was appropriate for the period (1894). Plastics would have been out of place, as would many of today's packaging techniques. Several props were modified, repainted, etc.

Many of the set props had to be made from the beginning. (See drawing 18) The gypsy tent resembled a Bedouin tent from the front. It was 8'-0" high, and 5'-6" wide. Because of limited backstage space, it was built in three pieces which were readily assembled and disassembled.

The gypsy campfire was very free in form. (See drawing 19) The size of the outline was determined, and this was cut out of a piece of plywood, which served as the base. The outside edge was built up with blocks of wood (2" x 4" and 4" x 4" lumber cut in 6" to 10" lengths), covered with Celastic, and painted to simulate rocks. It was then wired for the fire effect. In the center was a socket for an amber lamp to give a general glow to the fire. Around the edge was a string of six red and amber Christmas tree lamps to provide auxiliary spots of light. At the front was a

21 Celastic: "Cellulose-impregnated fabric resembling stiff felt. When softened with acetone or commercial solvent, Celastic can be formed in either positive or negative molds to make a variety of objects, including masks, armor, and many props." Lounsbury, op. cit., p. 22.
socket for a fifteen watt reflector-type lamp, which was colored with red lamp dip. This was pointed up into the face of actors seated directly behind the fire, bathing them in a hot, mystic light. Firewood, ranging from twigs to three inch diameter logs, was then fastened in place. The gypsy pot was wired to the fire so that it would be easy to move on and off stage. Care was taken in doing this so that an open path was left for the red light to wash the actors' faces.

Two concession booths were needed for the Fourth of July celebration. In order to leave as much room on stage as possible, and save time in setting up, it was decided to use the same structure for both booths. This was built with a four-foot wide front and two two-foot wide wings. These sections were covered on both sides, in the same manner as the double-sided flat in the feed store wall. (See drawing 21) The wings were attached to the front using double acting hinges. On one side was painted signs for the pie-eating contest. When this event was finished, the wings were turned in the opposite direction, and it became the kissing booth.

LIGHTING

Another design element used in fulfilling the basic concept of the production is the lighting. Because of the nature of lighting,

22Lamp dip: "Laquer used to color light bulbs." Lounsbury, _op. cit._, p. 79.
the design must be done after the designing of the scenery. The lighting designer must first know what will be on stage and where. He must know all the locations where an actor must be lit, and this depends to a great deal on the set.

But the lighting must do more than simply make the actor visible. It must add something to the production. It must, through its own qualities, make a statement about the play which furthers the values which the director is trying to bring out. In this case, the values to be stressed were the warmth and humor of the mood, and the fantasy of the structure of the play. It was also necessary to follow the changes in location and time within the script.

With these factors in mind, the light plot was begun. Over the years, a standard light plot for the Masquer Theater has been developed which works well to provide basic visibility for many productions. It was used as a basis for Buttonnose. (See drawing 22) It consists of an area of light in the corner next to the post, two more along each side next to the audience, a large area in the center of the stage, and one more in the remaining corner, diagonally opposite the center post. The exact location and shape of these areas depends on the setting. Starting from this point, additional instruments are added to provide color washes, emphasis, special effect, etc.

Each area was lit with two instruments, each one pointing roughly perpendicular to the direction of the rows of seats, one instrument on each side. These areas were intended to illuminate the scenes which were set in the town location. (This also includes
the hillside before the town appears, and the ghost town.) The predominant spirit of these sections is warm and happy, so the basic color should be a warm one, such as a light pink. Normally, contrasting colors are used to help define the three-dimensionality of the actors. In the case of the Masquer Theater, this is not as necessary because the audience is much closer and does not need as much help in seeing what is happening on the stage. In addition, since the audience is sitting on two sides of the stage, if two contrasting colors were used the two sides would see the stage very differently from each other. After some experimentation with the gels and the effects they produced, the colors decided upon were Brigham #62 (light scarlet) and Rosco #211 (flame). These are both in the warm pink-amber range, but have enough variation so they don't appear to be identical. They offer a slight contrast in color, but not enough to evoke different moods.

The scenes not played in the town required a different treatment. The stable scene was to be isolated in a relatively small location, roughly equivalent with the U. C. area of the town lighting. Along with the change of location, there would be a change of light source,

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23 Gel - gelatin: "Thin transparent sheets made of animal jelly and dye and used as color mediums for stage lights." Lounsbury, op. cit., p. 63.

24 Brigham - the brand name of one of the gelatin manufacturers. The brand name and number is important, because each manufacturer has his own way of naming and numbering his product.

25 Rosco - the brand name of a gelatin manufacturer.
lamps instead of sunlight. Therefore, only two instruments were to be used for this area, gelled with Brigham #58 (medium amber).

The remaining two scenes take place at night, out in the forest. In the first of these scenes, (Act I, Sc. 4) the entire acting area was washed with a pale blue light (Brigham #26, light sky blue) to get the effect of a moonlight night, and a cooler temperature than during the daytime. This also gave a desired eerie, mysterious feeling. However, it also made the actors difficult to see distinctly, and made them appear sickly. To counteract this effect, the area lights from the town scene were used at a very low intensity, and only where the main action was taking place. This served three purposes: increasing the visibility of the actor, "warming" him up, and emphasizing the desired area.

The following scene (Act I, Sc. 5 - the gypsy camp) was identical, with the addition of the campfire. The red lamp mounted within the fire shined up into the actors' faces. In addition, the area surrounding the fire was covered with a spotlight gelled with a red color (Brigham #65, light red) to increase the visual effect of the fire.

The rest of the lighting deals with the scrim effect and is of great importance if the effect is to work properly. With light only in front of the scrim, it is opaque and scenery behind it cannot be seen. But with light behind it, the scrim becomes transparent. The first problem was to get light on the front of the scrim without penetrating it. This was done with two spotlights on each side,
washing across the surface at a fairly high angle, so as much light as possible would be reflected, but none would pass through the fabric. These were gelled with Brigham #31 (medium sky blue) to give additional richness to the appearance of the scrim. For the sudden appearance of the town, two instruments were mounted behind the scrim, one pointing at each section of the set, gelled with Brigham #44 (medium blue green). This color made the reds and yellows of the set appear grayed, making it seem older and more weathered. Then, when the town came to life, the pink area lights were brought up to their full intensity and the blue green light was faded out.

Before actually mounting the instruments, the physical features of the Masquer Theater must be taken into consideration. First, the distance from the mounting positions of the instruments to the areas to be illuminated is very short, so an instrument with a very wide angle beam of light is necessary to cover the required area. In addition, the light from the various instruments should blend evenly so that there is no distinguishable line between the areas. For this purpose, the fresnel spotlight comes the closest to meeting the requirements and is used almost exclusively in the Masquer Theater. On the occasions in which the light must be kept to a small, highly

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26. Fresnel: The industry name of a spotlight having the characteristics listed above. The name comes from the developer of the lens which it uses.
defined area (as was the case in the stable scene), a top hat (also called a funnel) is used to control the beam of light.

A second factor which must be taken into consideration is that the audience sits on two sides of the stage, and thus a light shining from one side of the stage could shine in the eyes of the audience sitting on the other side. Care must be taken to angle the light so it does not bother members of the audience.

SOUND

The five basic functions of sound in the theater are: (1) voice reinforcement, (2) portrayal of realistic effects, (3) establishment of mood through arbitrary emotional stimuli, (4) transition between scenes, and (5) miscellaneous directorial techniques such as setting the pace, establishing the production approach, advancement of the plot, and others. Of these, voice reinforcement is not needed in the Masquer Theater, and only one realistic sound effect was used in Buttonnose, the playing of a guitar during the gypsy scenes. The rest of the mechanically reproduced sound lies in the last three categories.

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27 Top hat: "Light spill control. The devices...are designed to control the beam spread of light, to frame given areas, and to keep light from spilling on stage into areas where it is not wanted.... Sheet metal shield resembling (and sometimes made of) stovepipe." Lounsbury, op. cit., p. 96.

Each cue was music between the scenes of the play, and served as a transitional element. It also set the pace of the scene to come, and indicated a change from the previous scene. This in turn sets the mood for the audience. Perhaps this can be best illustrated by referring to the first cue in Buttonnose.

As the play begins the Harrisbones enter the stage, the theme from "Peter and the Wolf" is heard. This immediately sets the mood as light, warm, and gay. In addition, it sets a fairly rapid pace as they hike over the hills. Finally, it indicates, through the connotations of the music, that the production contains some degree of fantasy.

For use in the theater, sound is normally reproduced from a tape recording. This is smoother and easier to operate than other sources, such as the phonograph. With the tape recorder it is much easier to find the beginning of each cue with the use of timing (leader) tape (colored tape, usually white or yellow) which is inserted in the tape just before each cue. Also, tape recorders insure the operators against skips in the sound if someone should bump the machine, one of the great hazards with the phonograph. The process of preparing a sound tape takes several steps. First, the proper sound is located or selected. This is usually music from a phonograph record, although

29Cue: A discrete and whole element of sound used in a production. Each separate segment of sound that is used is a complete cue. See Appendix D for a list of cues for Buttonnose.
it may come from other sources, or even be recorded live. This sound is then recorded on tape. Timing tape is then spliced on before each cue, and each cue is labeled, usually with a cue number. The cues are then reassembled in the order they are to be used in the show.

There was one exception to this process used in Buttonnose. The transition cue between Act I, Sc. 4 and Act I, Sc. 5 was followed immediately by another cue. It was impossible to put both cues on one tape, as it was necessary to fade \(^{30}\) between them immediately. The normal procedure would be to use two tape recorders, and fade between them. However, the equipment readily available was one tape recorder and one phonograph so the first cue was put on tape and the record player was used for the second.

**TECHNICAL DIRECTION**

For the production of Buttonnose, the designer wore a second hat, that of technical director. Briefly, the function of the technical director is to make sure the designer's plans are carried out as he wishes them, and done on time. It is essentially a problem solving position. His first job is to find the manpower to staff the production, both the construction crews, which build the scenery, props, etc., and the running crews which handle these items during the production. Finding these crews is fairly simple at the University of Montana, as

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\(^{30}\)Fade: To dim a light or sound effect up or down. To fade between cues, the first cue fades down while the second cue is fading up.
all the members of the Stagecraft class are required to work on one of the productions and are assigned to one of the crews. All but two members of the running crew came from this source and the paid staff. The two remaining crew members were found after a short search.

The technical director is in charge of the construction of the scenery. Since this has been discussed in detail earlier in this chapter, it is not necessary to devote further time to it here.

The next major task begins with the technical rehearsals. This is normally the first time all the elements of the production are put together at once. The technical director must train the running crews in the tasks they are to perform. The first technical rehearsal was held for just this purpose, and involved only the running crews and the few actors and stage manager necessary to give cues for the changes. Several of the minor actors were used on the shifting crew, so they were also called and trained at this time.

The lighting intensities were set, and the dimmer readings were recorded so they could be accurately reproduced at a later date. Then the cues for the operation of lights and sound were rehearsed, and the timing for them worked out. The crews for shifting the scenery and operating the special rigging were shown their tasks, and this was rehearsed. It was at this point that it was discovered that one of the sound cues was too short to cover the scene shift, and it had to be re-recorded before the next rehearsal. The order of one of the cues also had to be revised, as the rigging crew was unable to see the action on the stage. Thus the sound operator took his cue from
the business of the actress and the rigging crew took their cue from the sound rather than the reverse, as had originally been planned.

The rest of the technical and dress rehearsals were run with the full cast and crew, except that the shift crew was called just prior to all the full rehearsals to run through their operation. Because the shifts would be done in a blackout, with an audience composed primarily of children, timing and speed of the scene shift was of utmost importance. Ideally the shifts would be limited to ten or fifteen seconds apiece, with thirty seconds being the maximum acceptable time. In several cases this proved to be impossible, primarily because the crew could not see what it was doing in the blackout. It became necessary to leave a slight glimmer of light on stage for the crew to work by, thus sacrificing the "magic" of the set being changed in the dark with no one seeing it, but allowing the change to be made within the allowable time period.

The technical and dress rehearsals were also a period of making sure all the details fit together. For instance, the antique bottle looked much too new, so the label was dirtied and torn to age it. The cork was also removed to differentiate it from the full bottles used later on in the play. The pies in the pie-eating contest (whipped cream in a pie plate) were too small to have the humorous effect desired. The solution found was to glue sponges on the plate and put the whipped cream on top of them. Several things that had been overlooked earlier were also caught at this stage. For example, when the ghost town comes to life, bunting was hung on the wall of
the feed store, but no one was assigned to take it down before the
town turned back into a ghost town. This was remedied simply by
assigning one of the actors to remove it.

The saloon window looked too large and bare so a café curtain
was hung on a rod over the bottom third of the window. Both red-and-
white and blue-and-white checked patterns were tried, sticking to the
red, white and blue accent scheme. The red color was finally chosen
as it looked better under the lights. This drape also helped to hide
the actors who had to get back and forth behind the window to operate
the rigging.

To mask the actor operating rigging behind the jail window, a
piece of cheesecloth was stretched over the back of it. Since there
was no light behind it at the time, it acted as a small scrim allowing
him to see the stage and the action on it so he could take his cue
without being seen by the audience. This cloth was painted with black
spray enamel, using a very light coat, only dark enough to make the
cloth a soft gray rather than white.

Several problems with the rigging had to be solved. The most
serious was the operation of the scrim on the roll drop curtain. The
bottom of the drop was made from pieces of cardboard rug tubing, and
while it was up in the air, it would sag and bend enough to make the
operation very difficult. It was finally found that by lowering the
drop immediately after the performance and leaving it down till the
next performance, it would remain straight enough to operate properly.
The rocking chair proved to be another problem as the back was just high enough to prevent the window shutters from opening or closing unless it were pulled all the way back. This necessitated an exact sequence that must be followed in order for all to work properly.

Once the show opens, the technical director's job is still not finished. He must check the set every day to make sure that all items are in working condition. He also makes a final check before the doors of the auditorium are opened to the audience to be sure that all the scenery is in place, the rigging ready, and the props ready. He also makes sure that all crew members are present and accounted for, or locates them if necessary. And, in case of emergency, he must be prepared to assume whatever tasks are necessary. In the middle of the run of Buttonnose, one of the actors became ill and the stage manager had to perform in his place. As the stage manager had shifting responsibilities assigned to him the technical director had to take these over for the performance.

The technical director's final duties occur at the end of the run of the show when he supervises the strike. All equipment must be put away, the set and lights taken down, props returned, and the theater properly cleaned up for the next users.

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Strike: "To remove all scenery and props from the stage."
Lounsbury, op. cit., p. 145.
CHAPTER V

SUMMARY

Up to this point, this thesis has been concerned primarily with the formulation and execution of the design and production concept for the children's play, Buttonnose. Finally, however, any production must be measured by the manner in which its end purpose is met. This purpose is the performance before, and the effect upon, an audience. The measurement of this effect is at best subjective. However, there are several indicators which may be used as a gauge.

First, the children (for whom the production was intended) seemed to be enchanted with what was happening before them. In the last several performances the characters Bobbie and Jimmy asked for help in finding the villain. The response was always immediate and enthusiastic, a mark of involvement in the production. At the end of the show, several children always came up on the stage to look through the jail or saloon doors. They often seemed disappointed that the buildings were not real. This seems to indicate some effectiveness of the scenery.

A second indicator is the review of the production. The reviewer, a student at the University of Montana, stated that "the production enters the youthful world of make-believe to entrance children of all
ages." She continues: "What is different about this play is that the stereotyped characters of the old west are combined with a lifting and lowering of a mysterious veil of time to reveal a lost century--a situation to which the imagination of any child." Her complete comments concerning the setting follow:

Visual impact also is created by the sets designed and built by Edward Thompson, a senior (sic) in the drama department. They depict saloon, jail and town hall all on one stage and, though constructed primarily of cardboard, they are rusticized to the extent someone in the third row might imagine himself getting a splinter if he touched one of the facades. Special effects, such as the rocking chair which rocks when no one is sitting in it, doors which open by themselves, a post supporting the saloon porch which straightens and leans without aid, will keep the youngsters spellbound in the presence of "ghosts."

Both of these indicators seem to suggest a favorable reaction to the design and execution of scenery for the production. On closer analysis, though, it would appear that the proposed and realized effects were not identical. The original concept called for a cartoon-like fantasy. Most of the comments on the effectiveness were couched in terms of realism. The children expected the town to actually exist, and the reviewer imagined getting splinters from the set. This would seem to indicate either the wrong choice of design concept, or confusion arising from the execution of the concept.

Upon careful examination, the latter would seem to be the problem. The most effective of the scenic elements were the special effects--the appearance and transformation of the ghost town. These

are also the elements which were most akin to the fantasy and magic of the script. The other elements of the design were not carried far enough. The colors of the sets could have been much brighter and the hues much closer to pure reds and yellows than they were. The lines and shapes of the buildings should have been curved and distorted rather than straight and parallel. This would have moved away from a realistic appearance to one of the world of the storybook illustration or cartoon.

Besides the design concept, several difficulties were encountered with the construction or use of several technical elements. Trouble was anticipated in lighting the scrim and time was allotted for experimentation to find the best possible solution. The problem was to wash enough light on the surface of the scrim so as to make it opaque without the light shining through the loosely woven material to shine on the scenery behind it, making the scrim more transparent.

The unexpected trouble with the scrim came from its operation as a roll-drop curtain. The cardboard carpet tubing onto which the cloth rolled sagged in the center and bent out of shape. One solution to this problem would be to use a stiffer material for the roller. A thin aluminum tubing, such as that used in drain spouts, is one possibility.

Another element of the design which was not entirely satisfactory was the lighting of the acting area. Too much concern was given to making the stage seem the same from all sides, and as a result the effect seemed bland at times. The most effective lighting was in the
scene at the gypsy camp, which was lit with a flood of blue light and a strong accent of red to indicate the effect of a campfire. The solution in the other scenes probably would have been to use the existing lighting, but to add accents in strong colors to bring more life to the lighting.

Although the production schedule was extremely tight, by spending several late nights working in the scene shop it was met. More serious was the problem that the designer/technical director had to be out of town for the three weeks during which the director cast the show and started rehearsals. Since this period was the formative one for both designer and director, it was a rather crucial one. As a consequence, several misunderstandings went undetected and uncorrected longer than they ordinarily would have.

The production had to be adapted to the unique design of the Masquer Theater. This presented a particularly favorable actor-audience relationship. It also presented some technical problems, the greatest of which involved the rigging of the special effects. These problems were overcome by planning in advance with the limitations of the theater in mind, or by allowing enough time for experimentation to discover the most advantageous manner of overcoming the problems.

The preceding chapters of this thesis have shown the process used in the design and technical direction of the scenery, props, and lighting of the original children's play, Buttonnose, by Richard F. Norquist. Although work of a technical nature may seem to predominate,
the important thing to remember in any such production is that all the elements of the production must be a part of the larger overriding concept arrived at through a joint effort of the director, designers, and other members of the production staff concerned with these decisions.
APPENDIX A

PROGRAM
UNIVERSITY OF MONTANA SCHOOL OF FINE ARTS
DEPARTMENT OF DRAMA
AND
MONTANA MASQUERS
present
Theater Workshop in
the premiere performance of a Children's Theater play

BUTTONNOSE

by Richard F. Norquist

APRIL 17, 18, 19, 20, 1969

Staged by Mr. Norquist*
Assistant to the Director: Richard Russell
Scenery and Lighting by Edward Thompson
Costumes by Terri Doremus

Roberta Harrisbone ................................................... Kimberly Head
Mr. Harrisbone .......................................................... Patrick Dubray
Mrs. Harrisbone .......................................................... Barbara Wiltzen
Cyclone ................................................................. Carl Darchuk
Jimmy ................................................................. Pete Mengels
Black Pete ............................................................... Donald Torgerson
Mule ................................................................. Mark McKeon
Chief ................................................................. Dean Baker
The Old One .......................................................... Claudia Haigler
Bruzzo ................................................................. Teddy Ulmer
Carlos ................................................................. Bob Bedard
Reyona ................................................................. Linda Eichwald
Grandma Butterfly ..................................................... Frances Morrow
Mayor ................................................................. Fred Booth
Mr. Wiggenbottom .................................................... Tom McLennon
Mrs. Wiggenbottom .................................................. Dale Haines
Miss Pruddy .............................................................. Patti Swoboda
Mr. Fortish ............................................................. Roger McClelland
Mrs. Fortish ............................................................. Leslie Lyon
Big Lil ................................................................. Peggy Dodson
First Townsman ........................................................ Terry Suoko

Scene: Several miles off the highway in the West.

* Mr. Norquist has written and staged "Buttonose" in partial fulfillment of the requirements for a Master of Arts degree. Originally from Gonvick, Minnesota, Mr. Norquist has published two plays and for the past two years has served as the University Theater box office manager. The idea for this play originated when Mr. Norquist visited the ghost town of Garnet with his two sons.
APPENDIX C

PROPERTY LIST
PROPERTY LIST

Act I, Sc. 1

Preset:

Old elixir bottle - on floor in front of saloon door

Rope, 4' section - draped over jail window bars

Mr. Harrisbone:

Picnic basket containing three bottles of coke, fake sandwiches, chewing gum (two sticks in foil wrappers), plates, cups and silverware for three.

Camera

Field glasses

Camp stools (2)

Road map

Antique guide book

Act I, Sc. 2

Townsman:

Bunting - red, white and blue

Old One:

Walking stick

Chief:

Rifle

Mr. Harrisbone:

Wanted posters

Mrs. Harrisbone:

Small parcel
Act I, Sc. 3

Preset:

Large crate (table)
Nail keg (seat)
Lunch basket - in front of crate
Picnic lunch - on crate (take from basket)

Cyclone:

Chewing tobacco

Act I, Sc. 4

Strike:

Picnic lunch and basket
Crate
Nail keg

Black Pete:

Perfume bottle

Act I, Sc. 5

Preset:

Campfire - with kettle and wooden spoon
Trunk - containing crystal ball and fortune-telling cards
Bench

Gypsy tent

Reyona:

Guitar
Act II, Sc. 1

Strike:
  Campfire
  Trunk
  Bench
  Tent

Old One:
  Flag

Chief:
  Tin Drum
  Dollar bills

Mayor:
  Dollar bill

Miss Pruddy:
  Picnic basket
  Book
  Cream pies (2) - offstage

Mr. Fortish:
  Pouch with coins

Mr. Wiggenbottom:
  Dollar bills

Townsman:
  Dollar bill
  "Soapbox" - offstage
  Concession booth - offstage
  Parasol - offstage
Jimmy X:

Arrowhead
Buffalo jerky
Baby rattler
Grizzly tooth
Jack knife
Chewing gum in foil wrapper

Grandma Butterfly:

Elixir bottles, full (2)

Cyclone:

Pouch with gold nuggets

Black Pete:

Saddle bags - offstage

Act II, Sc. 2

Strike:

Bunting

Mr. Harrisbone:

Camera
Field glasses
Camp stools (2)
Road map
Antique guide book
SOUND PLOT

Act I, Sc. 1

Cue 1 - Hiking theme; theme from "Peter and the Wolf"

Act I, Sc. 2

Cue 2 - Transformation music; electronic music, "Man in Space with Sounds," Worlds Fair Records, Side A, #5

Act I, Sc. 3

Cue 3 - Live town; "Wait for the Wagon," Silent Movie Music

Act I, Sc. 4

Cue 4 - Scene shift to Sc. 3; "Man in Space," Side A, #4

Act I, Sc. 5

Cue 5 - Scene shift to Sc. 4; electronic music, "Man in Space with Sounds," Side A, #6

Cue 6 - Mule's entrance; repeat Cue 5

Act II, Sc. 1

Cue 7 - Scene shift to Sc. 5; flamenco guitar, Carlos Montoya

Cue 8 - Gypsy music; flamenco guitar, Carlos Montoya

Act II, Sc. 2

Cue 10 - Hiking theme; theme from "Peter and the Wolf"
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