Electronic Theses and Dissertations

1958

A Study of the Principles of Technical Direction and Their Application to the Production of Sophocles' Play Oedipus Rex

Sherill Sandra Price

Follow this and additional works at: https://openprairie.sdstate.edu/etd

A STUDY OF THE PRINCIPLES OF TECHNICAL DIRECTION

AND THEIR APPLICATION TO THE PRODUCTION

OF SOPHOCLES' PLAY

OEDIPUS REX

by

Sherill Sandra Price

A thesis submitted
in partial fulfillment of the requirements for the
degree Master of Science in Language Skills
at South Dakota State College of
Agriculture and Mechanic Arts

December, 1958

A STUDY OF THE PRINCIPLES OF TECHNICAL DIRECTION
AND THEIR APPLICATION TO THE PRODUCTION
OF SOPHOCLES' PLAY
OEDIPUS REX

This thesis is approved as a creditable, independent investigation by a candidate for the degree, Master of Science, and acceptable as meeting the thesis requirements for this degree; but without implying that the conclusions reached by the candidate are necessarily the conclusions of the major department.

ACKNOWLEDGEMENTS

Thank you, Lawrence Stine, South Dakota State College Director of Drama, under whose direction both this thesis and much of my work in theatre have been made possible.

Thank you, also, Dr. Carl L. Wilson, for your primary responsibility for any strength of thought, clarity of organization and statement, and/or instructional merit in this thesis.

And thank you, Clarence Denton, South Dakota State College Technical Director, for your constant kindness, encouragement, and help given me in my theatre work and aspirations.

S. S. P.

iii

To

MOTHER and FATHER

TABLE OF CONTENTS

PART I. INTRODUCTION

PART II. BODY

LIST OF TABLES

LIST OF DIAGRAMS

LIST OF PHOTOGRAPHS

PART I. INTRODUCTION

TABLE OF CONTENTS FOR PART I

BODY FOR PART I

The Problem

Statement of the problem

The purpose of this thesis is to help inform students
of theatre about some of the considerations necessary in
coordinating and directing technical areas of play produc-
tion.

Definition of terms in the problem

"Students of theatre" refers especially to students
enrolled in theatre courses in colleges.

"Technical areas of play production" includes set
design, construction, and painting; costume design and
execution; lighting design and execution; properties; sound
effects; makeup; script selection, understanding, and in-
terpretation; publicity; and front of the house. The phrase
excludes acting and directing.

Importance of the problem

It is the purpose of a college curriculum in drama
to inform the students about all areas of theatre work;
the technical work comes under the jurisdiction of the tech-
nical director. Consequently, this thesis in technical
direction can serve as an instructional device for students
in educational theatre by including the following: (1) defi-
nition (by enumeration) of the technical areas of play pro-
duction; (2) explanation of some general considerations in

each technical area, including coordination with other areas
and the general time order for accomplishing the technical
tasks; and (3) application of the general considerations in
each technical area to the specific production of Oedipus
Rex at South Dakota State College on May 22 and 23, 1958.

The Procedure

Sources of information

The information for this thesis was obtained from
four general source areas--text books in play production
and technical theatre; personal experience in play production
and technical theatre, especially at South Dakota State
College; a daily record of the technical considerations,
decisions, and activities concerning the production of
Oedipus Rex; and consultation with the Technical Director
of South Dakota State College Theatre regarding technical
considerations for Oedipus Rex.

Utilization of information

A synthesis of the four sources of information was
used to formulate the material necessary to explain the
three general instructional areas listed under importance
of the problem--a definition of technical areas of play
production and general considerations of each technical area
first explained and then applied to Oedipus Rex.

The Thesis Organization

Overall organization

The thesis is divided into three main parts--preliminary pages, text, and literature cited. The text is further divided into three parts--introduction, body, and summary topical outline and index. The body is the largest and most complex part of the thesis and is further divided into ten chapters.

Chapter organization

Each chapter in the thesis is organized according to the following general plan: First, each chapter has a chapter table of contents; second, each chapter has the chapter body devoted to one specific technical area. The chapter body is further divided into two parts--general considerations of the specific technical area and application of the general considerations to Oedipus Rex.

SUMMARY TOPICAL OUTLINE FOR PART I

I. The Problem

   A. Statement of the problem--helping inform students
      of theatre about technical theatre

   B. Definition of terms in the statement of the problem

   C. Importance of the problem--instructional device
      in educational theatre

II. The Procedure

   A. Sources of information

   B. Utilization of information--formulation of material
      necessary to instruct students of theatre

III. The Thesis Organization

   A. Overall organization

     1. Preliminary pages
     2. Text
       a. Introduction
       b. Body--eleven chapters
       c. Summary topical outline and index
     3. Literature cited

   B. Chapter organization

     1. Chapter table of contents
     2. Chapter body--devoted to one specific tech-
       nical area
       a. General considerations of the technical
         area
       b. General considerations applied to Oedipus
         Rex

PART II. BODY

CHAPTER I

SELECTING THE SCRIPT

TABLE OF CONTENTS FOR CHAPTER I

Part 1. General Considerations
        in Script Selection

Part 2.   Script Selection Considerations
Applied to <u>Oedipus Rex</u>

BODY FOR CHAPTER I

General Considerations
in Script Selection

The director should be at least partially responsible for selecting the script, for he is the person responsible for the specific play production. But, although he should help select the script, it is often wise for the director to consult with other theatre people and people acquainted with the mores and beliefs of the potential audience before making the final script selection.

Certainly the director must know the technical equipment and facilities available to the theatre; if he lacks such knowledge, the technical director or someone acquainted with the technical aspects of the theatre must be consulted. Consequently, although selection of the script should be the special province of the director, discussion of script selection is included in this technical direction thesis because of the necessary technical considerations in selecting a script.[1]

---

[1] John Dolman, Jr., _The Art of Play Production_ (1st ed. rev.; New York: Harper & Brothers Publishers, 1946), p. 73. Willard J. Friederich and John H. Fraser, _Scenery Design for the Amateur Stage_ (New York: The Macmillan Company, 1950), p. 62. John Gassner, _Producing the Play_ (1st ed. rev.; New York: The Dryden Press, Publishers, 1953), pp. 202-203. Hubert C. Heffner, Samuel Selden, and Hunton D. Sellman, _Modern Theatre Practice_ (3d. ed.; New York: Appleton-Century-Crofts, Inc., 1946), pp. 12-13, 20, 25.

In order to select a play, the person(s) doing the se-
lecting must have knowledge of four things: (1) play scripts,
(2) an adequate play season, (3) the specific audience, and (4)
the specific theatre facilities and equipment.

Knowledge of plays

No play should be selected except upon knowledge of
that play and numerous other plays by all persons responsible
for the selection.[2] There are so many quality plays of all
kinds, styles, moods, themes, and settings that hasty, last
minute choice of an inferior play is unnecessary and inex-
cusable.

Knowledge of an
adequate season

Explanation

Selecting a complete season of plays can help guarantee
five desirable conditions.[3]

1. A variety of kinds and styles of plays can be selec-
ted.

2. A variety of types of sets and styles of scenic
design can be assured.

3. A variety in costume design can be assured.

4. Advertising (especially for a season ticket) can
be more effectively done.

_____

[2]Gassner, p. 202. Heffner, pp. 12-13, 20-22, 25.

[3]Dolman, p. 73. Heffner, pp. 20-21, 25.

5. Rehearsal and work schedules and equipment and personnel utilization can be most effectively planned.

Definition of terms

There is no concensus of opinion by experts about what are the various kinds and styles of plays or types and styles of technical designs. Consequently, a synthesis of terminology will be listed and used throughout this thesis in an effort to ensure reader understanding.

Kinds of plays.--Plays are classified as a particular kind according to the generally predominant mood or emotions they evoke.[4]

Comedy.--A comic play is one in which life is treated relatively dispassionately with a lightness that is never overwhelmed by life's pain. Comedies may be thought of as lying on a continuum from broad farce to rather serious, thoughtful comedy.

Tragedy.--If the comedy continuum were to be continued through progressively more serious, more passionate, more thoughtfully involved plays, the end of the continuum opposite farce would be tragedy.

Serious drama.--The middle portion of such a continuum is designated by some as serious drama.

There are no definite breaking points on the continuum which divide comedy from serious drama from tragedy. And

---

[4]Dolman, pp. 76-77. Friederich, p. 32. Gassner, pp. 44-52. Heffner, pp. 66-70.

experts may disagree as to classification of a given play.
What is important in deciding upon the kind of production,
however, is not the label but the relative location of the
play on the continuum.

Styles of plays.--The style of a play refers to the
style of dramatic writing the author used. There is even
greater disagreement among experts about the labels, defini-
tions, qualities, and limitations of styles of plays than
there is about kinds of plays.[5] Following are the classi-
fications used in this thesis.[6]

Realism.--Realism is a style of dramatic writing in
which the author aims to create an illusion of life as it is
or might be lived; the greatest volume of Occidental plays
falls in this category.

Naturalism.--Naturalism is the style of dramatic writ-
ing that arose in opposition to the selected and carefully
arranged details of realism. Although naturalism attempted
to depict life as it truly is (without selection and arrange-
ment of facts), it soon became highly selective (choosing
only the sordid things of life and nearly ignoring the more
pleasant).

Romanticism.--Romanticism is a style of dramatic writ-
ing in which selection is not of probable facts but of

---

[5]Friederich, pp. 3, 22. Heffner, pp. 70-71.

[6]Friederich, pp. 3-8. Gassner, pp. 53-67. Heffner,
pp. 70-73.

improbabilities--adventure, fantasy, and so on. "Romanti-
cism . . . presents only a life of the theatre which the
spectator believes in not because of his recognition of reali-
ty but rather through his wilful entrance into a pact with
the actors whereby he will accept their mode of theatrical
life so long as it can interest and entertain him."[7]

Classicism or neo-classicism.--The ancient Greek plays
are classified as classic in style; imitations of them are
referred to as neo-classic. Classicism and neo-classicism
do not aim at realism in language, characters, or manner
of presentation; the problems they treat and their themes
are frequently significant for men of all times and cultures.

Symbolism.--In so far as any play selects certain fac-
tors to stand for, or symbolize, the reality from which they
are selected, it could be called symbolic. However, some plays
utilize symbolic selection to a much greater degree, and the
term symbolism is generally applied only to those plays in
which the symbolism is an integral factor in understanding
the theme of the play.

Expressionism.--Selection is entirely subjective in
expressionism, for selected factors attempt to reveal and
interpret (not outer objective actions) but inner thoughts
and emotions.

---

[7]Friederich, p. 5.

A given play may have a mixture of several styles of scenes or may be entirely of one style. For any given production the style(s) (regardless of the labels used) must be determined and understandably communicated so that acting, directing, and technical work can be coordinated with the play's style.

Styles of scenic design.--Scenic design styles differ somewhat from dramatic writing styles and are somewhat more numerous.[8]

Realism.--As in dramatic writing, realism in scenic design attempts representation of what would pass for reality. Realistic sets are generally the easiest and least expensive to construct as well as frequently being the least interesting and effective.

Naturalism.--Naturalism in scenic design as in dramatic writing attempts to present the entire reality with no details omitted. Theatrical substitutes are not used for the real articles. For example, earth (not a painted ground cloth) is used on the stage floor if the setting calls for an earthen floor. Naturalism is expensive and generally unnecessary.

Reality is modified in simplified realism (symbolism) or impressionism by a more strict selection of details than occurs in naturalism or realism.

---

[8]Dolman, pp. 299-321. Friederich, pp. 8-24. Gassner, pp. 53-67, 73-91. Following, p. 66.

Simplified realism, or symbolism.--Simplified realism, or symbolism, employs minimum scenery of selected characteristic elements, or symbols, to represent the whole. A church window (accurate in detail) may stand for the interior of a church.

Impressionism.--Impressionism is like simplified realism, or symbolism, in its careful selection of characteristic detail, but differs from it in that the chosen elements are not complete in themselves but are reduced to their most important line(s) and/or mass(es). A brick wall becomes a painted ground row with only a few lines to suggest bricks.

Or realism may be so altered and exaggerated as to become basically non-realistic.

Stylism.--As in symbolism, the designer in stylism takes the forms of reality to their essence, but he then alters the objective essence of the form in a subjective way by exaggerating the form to emphasize the exaggeration of the script.

Expressionism.--Expressionism is similar to stylism, but exaggeration of the physical setting is in accord with the exaggeration not in the play's theme but in the character's mind.

Theatricalism.--Theatricalism may employ aspects of some other design styles but is distinguished by the fact that it employs theatre scenery as such without any attempt to camouflage the fact that it is scenery.

Constructivism.--Constructivism employs stage scenery for utilitarian purposes to the exclusion of the aesthetic. The basic construction structure is left bare and unadorned.

Formalism.--Formalism is the scenic design farthest removed from reality. Although other styles start with reality and exaggerate, distort, simplify, uglify, or beautify it; formalism dispenses with reality and presents merely a playing area with or without platforms, draperies, or sky cyclorama. When used alone, formalism has a spacious, austere dignity in harmony with a limited number of plays. Consequently, formalism is frequently combined with impressionistic or symbolic set pieces.

Style in designing as in writing is frequently a combination of several styles. The scenic design style of a given set may be given a different label by different persons; communication and understanding of the style of persons working with it is of primary importance.

Types of sets.--The type of scenery used will depend upon scene shifting problems, budget, and labor available as well as upon the kind and style of play and the style of set design. Any number of ingenious devices may be used by a given designer; some common types are briefly listed here for reference.[9]

---

[9]Dolman, pp. 359-72. Friederich, pp. 196-222. Gassner, pp. 92-93, 98-107, 321-26. Heffner, pp. 267-81. Following, p. 67.

Unit set.--The unit set may consist of flats, plastic pieces, and simple functional furniture which may be rearranged in an unlimited number of patterns. Or a unit set may consist of a permanent basic structure altered by varied utilization of the set openings and furnishings. Or a unit set may be reversible so that two entirely different color patterns and painted effects are possible. Or a unit set may include as a basic unit any number of short flats hinged together; such a unit set is sometimes called a screen set.

Curtain set.--Curtain sets are most effective if used with interesting plastic pieces and stage properties. The curtains themselves should be deemphasized as much as possible-- sufficiently dark to absorb light, devoid of hanging pictures, not draped in door or window shapes, and so on. A curtain set frequently uses stage properties for the set design. An alternative is to use a cut down set with the curtains.

Prism set.--A prism consists of three flats hinged together at two edged and hooked together on the third so that the triangle may be equilateral or isosceles. Any number of prisms may be arranged in any number of patterns with or without steps, platforms, doors, and so on.

Book set.--A book set is made by hinging several flats of the same size to a permanent central post from which they swing back and forth much as the leaves of a book would do. Permanent plastic pieces can be used downstage in a book set.

Scenery may also be shifted by use of wagons, discs, a revolving stage, or flying. Drops and scrims, or gauzes, are especially effective flown pieces.

Permanent set.--A single permanent set may be used to depict one locale and time; a multiple permanent set (composed of various locales) may be used to depict several locales.

Light set.--Although all sets must be designed in accord with the lighting equipment and facilities, some sets are staged with lighting as the predominant factor.

Knowledge of
the audience

Audience attitudes

Any audience has its prejudices, beliefs, likes, and dislikes; to disregard the basic attitudes of the majority of the audience is likely to result in loss of the audience--an essential ingredient in dramatic presentation.

Audience knowledge

If careful consideration of the attitudes of the audience is important so is careful consideration of the knowledge of the audience, for a great deal of instruction can be done through drama.

The best theatre program avoids the areas of deep audience prejudice and seeks the areas of audience ignorance so that it may introduce new and vital issues and ideas.[10]

---

[10]Dolman, pp. 73-74, 207-12, Friederich, pp. 61, 68-74. Gassner, pp. 202-203. Heffner, pp. 20, 23-25.

Knowledge of the
drama facilities

A play must also be selected with knowledge of the
facilities that will make its production possible or impos-
sible--actors, technicians, technical equipment and facili-
ties, and budget.

Actors

There are six considerations to make in selecting a
play or season of plays suitable for the given actors.[11]

1. Be as certain as possible of at least one capable
person for each essential role. To do Hamlet without a
strong Hamlet would be unwise indeed.

2. Be as certain as possible of at least one capable
person for each chief supporting role. To do Hamlet with a
strong Hamlet and a weak supporting cast would be extremely
unwise, too.

3. Especially in educational theatre, provide each
actor with a chance to play different types of roles. This
can easily be done by selecting plays with different types
of roles and/or by utilizing the same actor in widely different
roles in similar plays.

4. Especially in educational theatre, at some time
utilize all persons who wish to be cast--experienced and
inexperienced, capable and less capable, and so on.

[11]Dolman, pp. 73-74. Friederich, p. 62. Gassner,
pp. 203-207. Heffner, pp. 20, 24-25.

5. Choose plays that will be enjoyable and useful to the persons acting in them. "The real test of a play is its effect upon the players."[12]

6. Try to make available additional opportunities and experience for the serious students of theatre.

Technicians

The ability and experience of the technicians is also a factor to consider in selection of plays.[13] Although having an inexperienced and/or limited technical crew may not often alter the choice of play, it often will alter the style and type of set and other designs.

In educational theatre, the technician, too, must be given a chance to learn his art; this comes only from actually doing the technical work. The technician must have a chance to perform a variety of technical work with a variety of types and styles of set, lighting, and other technical designs.

Particularly skilled technicians (especially serious students of theatre) should be utilized in both design and execution of the technical work.

Technical equipment and facilities

No show can be done if the technical equipment and facilities to do it are not or cannot be made available.

---

[12]Dolman, p. 74.

[13]Friederich, pp. 62-64, 161-68. Heffner, pp. 20, 25.

In any show there are numerous ways of doing any of the technical effects. But, if no feasible way is known, the show becomes an impossibility; or, if the feasible way(s) greatly alter and limit the show, it may be an unadvisable selection.

The number and kind of facility and equipment limitations that a theatre may have are infinite; many are peculiar to the given theatre alone, some are common to many theatres--stage and wing size, sight lines, lighting equipment.[14] There must of course be adequacy of costumes, props, makeup, sound effects, and so on, but there is greater flexibility in these areas than in stage and wing size, sight lines, and lighting equipment.

Stage and wing size.--A stage can be made smaller with set pieces, but increasing the size of small stages and/or wing areas has great limitations.

Sight lines.--If sight lines from a given seat are prohibitive, the seat can be left unsold provided the length of run and average audience size warrant such procedure.

Lighting facilities.--Although lighting systems can frequently be more flexible than is realized, one cannot exceed dimming facilities and line capacities. Inadequate lighting equipment is frequently one of the strongest technical detriments in a theatre.

---

[14]Dolman, p. 73. Friederich, pp. 49-59. Gassner, pp. 203, 316-18. Heffner, pp. 20, 25, 229.

Budget

The available budget must be considered;[15] extrane-
ous costs arise in all aspects of the theatre and care must
be taken to remain within the budget. Coordinating the bud-
get with the total season of plays is frequently an asset in
planning the theatre program.

Naturally, all the minute technical plans for the season
of shows cannot be made at the time of the selection of shows,
but general technical limitations will often alter the possi-
ble style of productions. Knowledge of the technical factors
is essential to complete understanding of the type of season
possible with a given selection of plays.

Script Selection Considerations
Applied to Oedipus Rex

Knowledge of plays

At South Dakota State College the plays are chosen by
a play selecting committee which includes the director(s) and
other drama instructors and sometimes also includes drama
students and/or English instructors.

The play selecting committee meets (sometimes in May,
sometimes in September) to determine the season of plays.

At the first meeting, all committee members can submit
names of possible plays for production. Each play is discus-
sed and either immediately discarded or retained on a
tentative list.

---

[15]Gassner, p. 203. Heffner, pp. 20, 22-23, 25.

After the first meeting, committee members read and/or reread those plays on the tentative list with which they are not fully familiar. Additional meetings of a similar nature are had until some concensus of opinion is apparent. At the final meeting, the season of plays is chosen. Oedipus Rex was chosen in May of 1957 as a part of the 1957-1958 season of plays.

Knowledge of an adequate season

Plays at South Dakota State College are generally chosen by the season so that the advantages in variety and planning can be assured.

The college theatre calendar usually includes three full length plays, a musical show, an evening of one-act plays (chosen by the student directors), and two student variety shows. The 1957-1958 calendar as set up in May of 1957 included the following:

    October 10, 11, 12--The Tender Trap

    December 12, 13, 14--The Crucible

    January 23, 24, 25--A student variety show

    February 13, 14, 15--Oedipus Rex

    March 28, 29--A student variety show

    May 1, 2, 3--Oklahoma!

    May 23--An evening of one-act plays

The actual season was altered because of a sickness epidemic: there was no December show, The Crucible was given in February,

Oedipus Rex was given on May 22 and 23, and the evening of one-act plays was eliminated.

Table 1 indicates the variety in type and style of dramatic writing, scenic design style and type, and costume design for the South Dakota State College 1957-1958 season of plays.

Knowledge of
the audience

The State College audience (as most audiences) is widely varied in prejudices, beliefs, likes, dislikes, and knowledge. However, a general pattern of attitudes and knowledge is present.

Audience attitude

The basic attitude of the majority of the audience is judged to be overt adherence to rigid and dogmatic religious dicta. On occasions members of the audience have been known to count the number of "damns" in a play or to impute the portrayal of drinking or cursing in a character to the student acting the character.

Audience knowledge

The basic area of knowledge in which the majority of the audience is most lacking is the arts--literature, drama, dance, music, painting, sculpture, and so on.

For this reason, Oedipus Rex was perhaps the most instructive play of the season because of the style of

TABLE 1

1957-1958 SDSC PLAY SEASON

Play	Dramatic Writing		Scenic Design		Costume Design
	Kind	Style	Style	Type	
The Tender Trap	Comedy	Romanticism-Realism	Realism	Permanent, one unit	Modern dress
The Crucible	Serious Drama	Realism-Symbolism	Symbolism	Curtains & minimum prop set	17th century American
Oklahoma!	Comedy (Musical Show)	Romanticism	Stylism	Flown drops & out-outs	19th century Western Am.
Oedipus Rex	Tragedy	Classicism	Formalism-Symbolism	Permanent, one unit	Modified ancient Greek

dramatic writing employed, the use of poetry and dance, and the historical period from which it came. Assuredly, the size of the audience for Oedipus Rex was less than that for The Tender Trap or Oklahoma!, but, although audience size is one indication of the usefulness a given play has for its prospective audience, it is not the only indication. In addition to making available a source of knowledge not common to the majority of the audience, Oedipus Rex also provided entertainment for the segment of the audience which already knew, understood and enjoyed Greek drama.

The specific translation[16] chosen from the three considered[17] was judged as the one least poetic, most like daily conversation, and, therefore, the one which would be least unusual to the majority of the audience.

There are, of course, a greater number of translations than three. The three considered were in somewhat readily accessible acting editions and generally faithful to the original source.

Some of the historically well-known adaptations are lacking in fidelity to the original:

A comparison of Sophocles' play with the modern adaptations of various authors is profitable and enlightening.

---

[16]The Theban Plays, trans. E. F. Watling (Baltimore, Md.: Penguin Books Inc., 1957), pp. 25-68.

[17]Fifteen Greek Plays, trans. Lane Cooper (New York: Oxford University Press, 1950), pp. 161-210. Seven Famous Greek Plays, ed. Whitney J. Oates and Eugene O'Neill, Jr. (New York: Random House, 1950), pp. 117-82. Theban Plays, pp. 25-68.

The most striking difference, perhaps, is the sharp con-
trast between the severe classicism of the Greek and the
extreme romanticism of the French versions. The length
of a Greek tragedy, furthermore, is obviously not suffi-
cient for a modern presentation, especially after the
choral songs have been omitted. Every modern adapter,
therefore, must add to the plot.[18]

The Oedipe of Corneille (1659) alters the original play
by stressing the author's sub-plot and by alteration of the
character of Oedipus from one which merits our sympathy to one
which merits our dislike.[19]

Dryden and Lee in their translation (1679) emphasize
their own sub-plot and melodramatic sensationalism in action,
language, and characters. "Some brilliant strokes, however,
are found in the play. The best of these, perhaps, are the
ill omen of Jocasta's speeches upon her first entrance and the
motivation of Oedipus' ignorance of the circumstances of Laius'
death."[20]

The Oedipe of Voltaire (1718) "is perhaps the best of
the more famous modern versions."[21] The minor plot tends to
add to the play and recede in importance as the main plot
builds. Both Oedipus and Jocasta are treated as sympathetic
and admirable characters. "Of the changes made in the
Sophoclean material itself perhaps the final scenes, which
have been influenced by Seneca, are the most successful.

---

[18]Philip Whaley Harsh, A Handbook of Classical Drama
(Stanford, California: Stanford University Press, 1948), p. 114.

[19]Ibid., pp. 114-115. [20]Ibid., p. 116. [21]Ibid.

Here Oedipus is forced himself to reveal his identity to Jocasta, and at the very end Jocasta commits suicide on stage."[22]

Knowledge of the drama facilities

The selection of plays at South Dakota State College is made by persons acquainted with the drama program--the majority of the student actors and technicians who will be available, the equipment and facilities, and the budget.

Actors

1. An absolutely essential person is needed for the role of Oedipus in Oedipus Rex. There was a serious possibility that the role might not be cast. A person new to State College Theatre was utilized in the part, but the chance of not finding such a person was one of the disadvantages in selection of Oedipus Rex.

2. Generally speaking there are enough capable actors to fill a limited number of support roles such as one finds in Oedipus Rex.

3. The types of roles in a Greek play are generally unique to the classics; the chorus members especially would not have a chance to play a similar role except in another classical play.

4. At State College it is frequently difficult to select plays which will utilize the numerous actresses and

---

[22]Ibid.

the fewer actors. But in Oedipus Rex, all students who at-
tended tryouts were able to be cast for the following reasons:
(1) the chorus of Theban elders was altered to include not
only men but men and women, (2) the male attendant's speech
was broken and given to two women, and (3) many inexperienced
(as well as more experienced) actors were utilized in the chorus.

      5.   Students of theatre do not frequently have a chance
to work on and in a classical drama; such an opportunity is,
in general, rewarding for the actors.

Technicians

      The greatest number of the technical theatre students at
State College are also interested in acting. The close pro-
duction dates of Oklahoma! and Oedipus Rex (both relatively
large cast shows) would indicate a limited number of technicians
for both mounting and running the two shows. Consequently,
simplicity of technical design for both shows would be a neces-
sity.

Equipment and facilities

      Stage and wing size.--The State College stage is in-
adequate in size. The eighteen foot depth is a limitation for
nearly any plan and often causes gross technical modifications.
The proscenium height is a limitation nearly as often as the
stage depth. A maximum raising of the act teaser to fifteen
feet permits only ten and one half to thirteen feet in height
of the stage rear to be visible from the balcony. In addition,

a fifteen foot proscenium height creates problems in concealing the lights from the main floor front rows. Currently utilization of the rear stage wall is especially limited by the semi-permanent installation of a large movie screen less than thirteen feet from the floor.

The proscenium width of thirty-eight feet is seldom a limitation, but wing space is decidedly limited and crowded during nearly any show. Stage depth and a weak grid prevent the flying of much heavy scenery.

Sight lines.--Approximately one-fourth of the seats in the house are beyond the proscenium opening. As a consequence, half of the width of the stage rear is cut off from part of the house and nearly all of the wing area is visible to some part of the house. This makes concealing the wings and still maintaining large and sufficient entrances a problem.

Lighting facilities.--The light control board is often a limitation for designing. Of the sixteen dimmers, ten are permanently or semi-permanently attached. The board is located backstage in the blocked off wing area, and execution of the light cues is most difficult.

All of these factors would undoubtedly impose their limitations on the technical designs for Oedipus Rex, but none would apparently entirely prevent the production.

Budget

The drama program at State College is primarily financed by student fee although admission is charged to non-students;

consequently, the year's budget can be closely approximated
and apportioned among the season's plays.

CHAPTER II

UNDERSTANDING THE SCRIPT

TABLE OF CONTENTS FOR CHAPTER II

Introduction for Chapter II

Part 1. General Approaches
to Understanding a Script

Part 2. This Thesis Approach
to Understanding the Script

Body for Chapter II

Part 1. General Understanding
of Greek Drama

Development of Greek dramatic writing

      Part 2. Specific Understanding
           of Oedipus Rex

INTRODUCTION FOR CHAPTER II

General Approaches to Understanding
a Script

Reliance on self alone

There is a philosophical controversy about the way
in which understanding should be derived from any written
material. At the one extreme, it is argued that a written
message, if it is meaningful and applicable to any given
reader or listener, should be understandable to that person
by his reading or hearing the message and not by his know-
ing what others say about it or under what conditions it was
written. "In reading literature our impressions are every-
thing and . . . outside them there is nothing to be found."[1]

Reliance on authority alone

At the other extreme, there are those who feel that
every word, stage direction, reference should be documented
if possible. "Any work more than a few hundred years old
must baffle us unless we have authorities constantly at our
elbow."[2]

Reliance on both self
and authority

Others believe that neither extreme is desirable;
that the worth of individual understanding and historical

---

[1] A. J. A. Waldock, Sophocles the Dramatist (Cam-
bridge: The University Press, 1951), p. 18.

[2] Ibid., p. 10

documentation are integrated parts of an ideal whole; that
each person must rely on himself to gain his unique under-
standing of any message, but his understanding can be enriched
by utilizing the "time-binding"[3] function of mankind which
enables one person to benefit from the knowledge of other
people and other ages. This concept is applied to the under-
standing of Greek drama by Bernadotte Perrin who says, "Greek
dramas . . . still have power to hold and impress a modern
English-speaking audience. But these dramas gain in power,
whether acted or read, as hearer or reader succeeds in
realizing the peculiar conditions under which they were
originally produced."[4]

<div align="center">

This Thesis Approach to Understanding
a Script
</div>

In this thesis, the third of the listed possible
approaches to understanding a script is accepted--reliance
on both self and authority.

Self reliance is used in the personal appreciation of
the play, the specific utilization of technical material, and
the specific approach to the technical designing and execution.

Reliance on authority is used to help determine technical
areas and their general considerations. Authority is also used

----

[3]Wendell Johnson, People in Quandaries (New York:
Harper & Brothers, 1946), pp. 162-67.

[4]Greek Dramas, ed. Bernadotte Perrin (New York:
D. Appleton and Company, 1904), p. 111.

to understand many things about the script itself.

BODY FOR CHAPTER II

General Understanding of Greek Drama

Development of Greek
dramatic writing

The extant Greek plays grew out of a tradition of epic, lyric, and dramatic poetry and were later influenced by the following forensic tradition.[5]

Epic tradition

The origin of all figures of Greek plays is in the Homeric epics[6] which are dated from the tenth to the eighth centuries B. C.[7] In the extant plays, the epic tradition of long narrative spoken poetry is evident in the messengers' speeches.[8]

Lyric tradition

The lyric tradition, which flourished in the seventh and sixth centuries B. C.,[9] grew up around the festivals

---

[5] The Theban Plays, trans. E. F. Watling (Baltimore, Md.: Penguin Books Inc., 1957), p. 8.

[6] Greek Drama, p. v. Richard G. Moulton, The Ancient Classical Drama (2d ed.; Oxford: The Clarendon Press, 1898), pp. 4, 14. Lauchlan Maclean Watt, Attic & Elizabethan Tragedy (New York: E. P. Dutton & Co., 1908), pp. 16, 18.

[7] Seven Plays, p. ix. Meyer Reinhold, Essentials of Greek and Roman Classics (United States: Barron's Educational Series, Inc., 1946), p. 6.

[8] Moulton, pp. 15, 145. [9] Theban Plays, p. 8.

which the Dorians of Peloponnesus devoted to the god
Dionysus.[10] The lyric tradition of short sung poetry is
evident in the stasima, or choral odes, of the extent plays.

The lyric tradition grew out of worship for Dionysus,
or Bacchus, the Greek god of fertility and wine, whose signif-
icance to the Greek people was not unlike the significance of
the Holy Spirit in the primitive Christian Church. Dionysus
as lord of life, subject to death in life and life after
death, was closely associated with departed souls. As great
inspirer he was associated with the cultus of the Muses. As
god of vines and wines his association for the early Greeks
was similar to the association of Christ as the giver of grain
and bread for Christians. Consequently, for the Greeks, Diony-
sus served as the source for every aspiration and inspiration,
higher and lower; and the vintage festivals presented each
year in his honor reflected both kinds of inspiration in the
religious enthusiasm of the choral folk songs and dances.[11]

Some of the choral folk songs and dances were rustic,
jovial, and riotously gay.[12] "In modern life all the force
of religion is often insufficient to control appetite for

---

[10]Greek Dramas, p. vi.

[11]Greek Dramas, pp. iv-vi. Moulton, p. 5. Seven
Plays, p. xii.

[12]Four Famous Greek Plays, ed. Paul Landis (New York:
The Modern Library, Inc., 1929), p. x. Greek Dramas, p. vi.
J. P. Mahaffy, A History of Classical Greek Literature (New
York: Harper & Brothers, 1880), I, 230-32.

vinous excess, where religion and appetite were on the same side it is no wonder that Dionysiac festivals were orgies of wild excitement."[13] These songs and dances of "lower" inspiration were later more closely associated with the Greek satyr dramas.

✓ Some of the choral folk songs and dances--turbulent, impressive, rich in tragic contents--were the direct forerunners of the Greek tragedies.[14] These "high" inspirations developed into the dithyrambic hymns of praise to Dionysus, which were perfected toward the end of the seventh century B. C. by Arion. In the perfected state, the dithyramb had a structure of strophe and antistrophe[15] and was performed as an imitation of part of Dionysus' life--his passion, death, resurrection. At the Dionysiac spring festival a chorus of fifty men identified themselves with Dionysus' attendants (a train of satyrs--half goat and half man) by wearing goat skins and singing and dancing imitatively around an altar placed in the center of the orchestra, or circular dancing place. (Their song was called "tragoidia" or "tragoedia," the song of the goat skin wearers; from its name comes the word--tragedy.) "The real dancing of the Greeks is a lost

---

[13]Moulton, p. 6.

[14]Four Plays, p. x. Greek Dramas, pp. v-viii. Mahaffy, I, 230-32. Moulton, p. 8. Reinhold, p. 56. Seven Plays, p. xii. Watt, p. 7.

[15]Following, p. 46.

art, of which the modern ballet is a corruption, ... It was an art which used bodily motion to convey thought; as in speech the tongue articulated words, so in dancing the body swayed and gesticulated into meaning."[16]   One can infer that a deaf person could attend the performance of a perfected dithyramb and gain as much meaning from the movement alone as a blind person could have gained from the words alone.

Dramatic tradition

The dramatic tradition, which flourished in the fifth century B. C.,[17] grew up around imitation of the lives and activities of Dionysus and other gods and heroes. The dramatic tradition of acted poetry is evident in the dialogues of the extant plays.

Early developments.--The step by which the dramatic form first broke through the lyric form was the splitting of the chorus into two semi-choruses for brief dialogues. Although Arion may have inserted such spoken verses between the choral odes, it is Thespis who is credited with initiating the rhesis and the impersonating actor. The rhesis, or recitative solo, was given by the chorus leader, or coryphaeus, and responded to by the rest of the chorus, or choreutae. Soon the rhesis was delegated to some other chorus member, and the

---

[16]Moulton, p. 2.
[17]Theban Plays, p. 8.

leader impersonated Dionysus, acting out his sufferings and joy. Later, all of Dionysus' relatives, friends, and foes were brought into the action; the dialogue, characters, and plot of drama developed as the lyric parts receded. This series of transitions might be likened (1) in form to the development of opera and its evolution into musical shows and (2) in content to the Passion Play.[18]

Impersonations were soon passed from Dionysiac associations to any heroic or sacred legends about the gods or heroes. It is Phrynichus, Thespis' successor, who is credited with the first dramatization of recent historical events, as well as the innovation of female parts to be carried by male singers or actors.[19]

Fifth century B. C. developments.--All of the preceeding developments laid the historical foundation for the work of the three great Greek tragedians--Aeschylus, Sophocles, and Euripides.

Aeschylus,[20] the first in time (born in 525 B. C.) of the three, served heroically in the battles of Marathon, Salamis,

---

[18]Fifteen Plays, p. xi. Greek Dramas, pp. ix-x. An Introduction to Drama, ed. Joy B. Hubbell and John O. Beaty (New York: The Macmillan Company, 1927), pp. 20-22. Moulton, pp. 11, 12, 14. Watt, p. 9.

[19]Fifteen Plays, p. xviii. Greek Dramas, p. xi. The Theban Plays, p. 11. Watt, p. 10

[20]Fifteen Plays, pp. ix, x, xii, xiv, xviii. Four Plays, p. xiv. Greek Dramas, xii, xv, 2. Greek Plays in Modern Translation (New York: The Dial Press, 1952), p. viii. An Introduction, p. 27. J. P. Mahaffy, I, 243, 248. Reinhold, pp. 56, 60. Seven Plays, pp. xvii-xviii. Fifteen Plays, p. 8. Watt, pp. 10-11.

and Platea and was better known in his life as a warrior than
as a poet; however, his contributions in the latter area have
been more lastingly significant.

He directed his own plays, served as stage manager
for them, sometimes took the lead in them, reduced the chorus
from fifty to twelve, increased the number of actors from one
(the protagonist) to two (the protagonist and his foil), added
long flowing costumes, used tombs and statues and altars upon
the stage, added the three door background entrance, and wrote
his plays as tetralogies--four chapters (three tragedies and
a satyr drama) of a single myth.

Aeschylus' plays--with their lofty, heroic characters
and rich, heavy language--dealt with the universal signifi-
cance of religion and theology as laws for governing life; his
study of human affairs was only a means of elucidating religion
and theology for him.

Of the seventy to ninety plays Aeschylus wrote, seven
remain today, and twelve to fifteen won victories at the Greek
contests where they were exhibited, apparently every other
year.

The second in time of the three great Greek tragedians
was Sophocles,[21] who was born in 496 or 495 B. C. and died in
405 B. C. The wealth of his parents made possible an excellent

---

[21]Fifteen Plays, pp. x, xii, xiv-xvi, xviii. Four Plays,
pp. ix, xv. Greek Dramas, p. 102. An Introduction, pp. 22,
27-28. Reinhold, pp. 56, 74. Seven Plays, pp. xix-xxi.
Theban Plays, pp. 7-8, 10. Watt, p. 11.

education for Sophocles. He did not distinguish himself as a military leader (perhaps because Greece was in relative peace during most of his life), but he was of some importance in political affairs. However, he was primarily known in his time and later as a poet.

Sophocles, like Aeschylus, directed his own plays and acted as stage manager for them, but his weak voice enabled him to take only occasional minor roles. He added a third actor (The three actors could fill six or more parts.), increased the chorus from twelve to fifteen, and separated the lyric chorus further from the dramatic action. Sophocles' plays were not in strict tetralogical sequences: each was a complete unit in itself. During his career, scene painting, masks, padding, and footwear also became a part of Greek drama.

Sophocles' plays dealt with the dignity, worth, and value of man as guided by heaven and its eternal laws; his characters were well written--true to life and type and self consistent. He was preoccupied with the theological mystery of man's fate.

Of the 80 to 125 plays Sophocles wrote, seven remain today, and eighteen to twenty won victories at the Greek contests where they, too, evidently appeared every other year.

Euripides[22] (born in 485 or 480 B. C., died in 406 B.C.) was the third in time of the great Greek tragedians. He was a friend of Socrates, scholarly, changed his primary interest from painting to literature, remained relatively free from public duties, and devoted his life to scholastic and literary work.

Euripides introduced the prologue, deus ex machina, less grand style of language, and new and unorthodox views in reinterpretation of the traditional legends.

Euripides, a questioner full of skepticism and un-certainty, was the most human of the three tragedians and the closest to modern man in feeling. He was concerned not with religious or other institutions or theology but with the ethical problems of man. His plays, superb and genuinely pathetic studies of human problems, are filled with psycho-logical analysis of his characters.

Of the ninety-two plays Euripides wrote, eighteen or nineteen remain today. However, only four or five won at the Greek contests; although he apparently exhibited approx-imately eighty-eight.

The three great Greek tragedians through competition in partially contemporary lives developed the form of the extant Greek tragedies--their structure, language and poetic devices, and use of chorus.

_____

[22]Fifteen Plays, pp. xiv, xviii. Four Plays, p. xvi. An Introduction, p. 26. Reinhold, p. 90. Seven Plays, pp. xviii-xix. Theban Plays, p. 8. Watt, p. 11.

In structure, Greek tragedies are divided into five
general parts:[23] prologue, an explanation in monologue or
dialogue of the situation at the play's beginning; parodos,
the entrance and first ode of the chorus; episodes, the plot
developmental acts or scenes of the play (all--usually four
or five in number--divided from one another by stasima); the
stasima, choral odes following the action of each episode;
and exodos, the action after the last stasimon during which
the chorus and all actors leave the stage.

The language throughout Greek tragedy is aimed not at
realistic conversational dialogue but rather at lofty beauty
and is, therefore, highly artificial.[24] The Greek audience
knew that the Greek play was not a representation of the life
around them, but rather one man's vision of a universally fa-
miliar myth. And so, the stilted language was as appropriate
for them as Bible verse is for a Christian viewing a reenact-
ment of the nativity.

Iambic meter was most commonly used, probably because it
was a compromise between conversation and a solemn religious
chant, but changes in feeling or action in the play were
accompanied by changes in the metrical pattern.[25] Iambic

_____

[23]Moulton, pp. 9, 81. Reinhold, p. 56. Seven Plays,
pp. xiii-xv.

[24]An Introduction, p. 24.

[25]Moulton, pp. 86-92. Seven Plays, p. xiv.   Watt, p.
12.

trimeter is frequently used in short dramatic dialogues or monologues; trochaic feet are sometimes used for sudden outbursts.

The parados had a set pattern of rhythms and movements.[26] The chorus entered to a marching rhythm, their first lyric ode of iambic pentameter or hexameter was divided into strophe and antistrophe with a possible epode and/or mesode(s). The first stanza of the initial ode was the first strophe, during which the chorus moved away from the altar and to the right. Then, during the next stanza, or first antistrophe, the chorus moved toward the altar. There were any number of strophe-antistrophe groups; a second group would have required movement to the left of the altar; thereafter, the group movements continued to alternate to the right and then to the left of the altar. Two strophe-antistrophe groups might or might not have been broken by a mesode of movement around the altar. If the final stanza was accompanied by movement around the altar, it was called an epode.

The stasima odes were generally in iambic pentameter or hexameter and frequently followed a pattern of strophe-antistrophe with or without mesode(s) and/or epode; sometimes the stasima were in the form of a commus--a lyric ode sung in alternate verses by the actors and the chorus.[27]

---

[26]Moulton, pp. 6, 9, 86-88. Seven Plays, pp. xiv-xv.

[27]Moulton, pp. 6, 9, 81, 86. Seven Plays, pp. xiv-xv.

Although the extant Greek dramas were written by
Ionic poets, many of the choral parts in the prologues and
stasima were composed in Doric dialect, apparently because
of the Dorian origin of the Dionysiac dithyramb.[28] (The
Ionic dialect was more soft and graceful than the rugged
Doric dialect.)

The lyric odes of the chorus (in the parados and
stasima) served mechanical, representative, explanatory,
and aesthetic functions for the play.[29]

Mechanically they embodied the unities of time,
place, and action by separating (in time) the episodes
and by explaining relevant incidents which could not occur
at the given place and/or time.

From its original position as protagonist in the
religious ceremony, the chorus came to represent common
men--their average morality and courage, the normal state
of mind, public opinion of the theatre patrons, the audience
thinking aloud. The chorus was in clear contrast to the hero
who represented an uncommonly great man with super human
morality, courage, ideals, suffering, and thoughts.

---

[28]Greek Dramas, p. viii. An Introduction, p. 24.
Reinhold, p. 4. Watt, p. 15.

[29]Fifteen Plays, p. xiii. Four Plays, pp. ix-xi.
An Introduction, p. 26. Mahaffy, I, 240-41. Moulton,
pp. 9, 66-69, 124-26. Reinhold, p. 57. Seven Plays,
p. xiv. Theban Plays, p. 9. Watt, p. 15.

As a representative of common man, the chorus was a bridge between the audience and the stage.

The chorus' odes explained the universal religious, moral, and social significance of the play's action and theme(s). Their involved sympathies and comments (despite uninvolved action) expressed the spirit and mood of the play.

Aesthetically the chorus gave the beauty of poetry and dance to the play. The poetry was spoken, intoned, or sung as solos, duets, or any other possible combination of voices. Occasionally the chorus was accompanied by a single lyre or flute. The dance movements were statuesque, imitative, and interpretative.

The chorus not only provided a lyric element but also took part in the dramatic dialogue of the episodes. During such times, they spoke with and sometimes advised the actors.[30]

Forensic tradition

The forensic tradition, which flourished in the fifth and fourth centuries B. C.,[31] was incorporated into the later extant plays. The forensic tradition of judicial procedure is frequently evident in the dialogue in which the hero and

---

[30]Mahaffy, I, 240. Moulton, p. 65. Reinhold, p. 57.

[31]Mahaffy, II, 160ff. Theban Plays, p. 8.

his opponents discuss their respective cases with forensic formality.[32]

Presentation of Greek dramas

Dramatic presentation
structures

Just as no two theatres of today are exactly alike, so no two Greek theatres were identical. And just as theatre structures of today continually are modified, so they were in ancient Greece. However, a general pattern of the basic type of theatres in ancient Greece can be formulated.

Orchestra.--The largest acting area was the circular orchestra (some measured ninety feet or more in diameter) in which the chorus did its dancing.[33] Located in the center of the orchestra was the altar and statue of Dionysus upon which a sacrifice was laid before the play started.

Theatron.--Encircling and nearly enclosing the orchestra was the theatron[34]--a curved bank of audience seats frequently set against the slope of a hill. The seats were separated into concentric strips by aisles, or diazoma.

---

[32]Moulton, pp. 141-45.

[33]Fifteen Plays, p. xi. An Introduction, p. 22. Moulton, p. 127. Reinhold, pp. 57-58.

[34]Fifteen Plays, p. xi. Mahaffy, I, 238-39. Siegfried Melchinger, Theater der Gegenwart (Frankfurt, Germany: Fischer Bucherei, 1956), p. 19. Reinhold, pp. 57-58. Seven Plays, p. x.

Flights of steps, or klimakes, separated the seats into
wedge-shaped sections called kerkis. Later, the audience
could reach the top of the theatron, or koilon, by climbing
a ladder and going through a colonnade. The audience fre-
quently brought cushions to sit on, for the seats of ground,
stone, or perhaps lumber were hard. The theatres of Greece
accommodated an audience of from 15,000 to 30,000. The throne
of the priest of Dionysus was ideally located in the theatron
opposite its open end. Also seated near the priest were the
judges and other honored spectators.

Stage.--Opposite the seats of the dignitaries in the
open end of the theatron was a stage.[35] Perhaps the stage
was at first level with the orchestra and a continuation of
it into the open area between the ends of the theatron.
Eventually it became a long, narrow, rectangular platform
above the orchestra level and connected to it by a flight of
steps. This same flight of steps grew to be continued under
the stage (below the level of the orchestra) for entrances
and exits of ghosts and underworld apparitions.

Skene.--Touching the rear of the stage was the skene,[36]
which served as a dressing room. The front of the skene

---

[35]Four Plays, p. viii. Mahaffy, I, 241-42.
Moulton, p. 127. Reinhold, pp. 57-58.

[36]Fifteen Plays, p. xi. Four Plays, p. viii.
An Introduction, pp. 20, 22-23. Mahaffy, I, 242-43.
Moulton, p. 127. Reinhold, pp. 57-58. Watt, 29-30.

touched the stage, generally represented a temple, and served as the background for the play. (Tragedies were usually set near a temple or palace, comedies on a street.) The skene facade was originally probably a long, low, wooden structure, but eventually richer building materials were used. Later two stories were added, sometimes with a platform on the upper story, or episcenium. The lower story came to have three doors: The center door was used for the entrances and exits of the protagonist, or hero; the stage right door was used for the deuteragonist, or supporter of the protagonist; the stage left door was used for the tritagonist, or opponent of the protagonist. Messengers from home generally entered through the stage right door, messengers from abroad through the stage left door. However, messengers made their exits through the paradoi, the orchestra level alleys between the stage and theatron. The paradoi were also used for chorus and spectator entrances and exits.

Behind the stage--sometimes at a distance, sometimes forming the skene--was the temple erected to Dionysus.

Painted scenery.--Eventually scenery other than the skene front came to be used.[37] The study of the art of scene painting and perspective was initiated by the skenographer, Agatharchus; Anaxagoras and Democritus took up the optical

_____

[37]Mahaffy, I, 243-44. Moulton, pp. 17, 127. Reinhold, p. 57.

questions; and in about 400 B. C. Appollodorus, another
skenographer, perfected the art. Flanking the stage were
two projecting wings, or paraskenia, which were used to help
alter the painted scenery in two ways: Some pieces of scenery
could be drawn back from the stage and concealed behind the
wings. At the wings were two lofty, triangular prisms called
revolvers; on each face of the revolvers was painted a different
scene.

Additional equipment.[38]--A large curtain was used to
hide any god who would enter for a deus ex machina ending
(an ending in which a god entered to untangle the play's final
action). However, no act curtain was used. A piece of stage
machinery, other than the derrick used to bring in a god, was
the eccyclema, a platform on wheels which rolled an interior
scene out from the center skene door onto the stage.

Dramatic presentation
ceremonies

Ceremonial competition.--The Greek plays were presented
at both of two national religious festivals--the Lenaea, or
festival of the wine-press, in January or February and the
Greater or City Dionysia festival in March or April.[39]

---

[38] Four Plays, p. ix. An Introduction, pp. 23-25.
Mahaffy, I, 243. Moulton, p. 127. Reinhold, p. 58.
Seven Plays, p. xi.

[39] Fifteen Plays, p. ix. Greek Dramas, pp. iii-iv.
An Introduction, p. 20. Mahaffy, I, 247. Moulton, p. 7.
Reinhold, pp. 57-58. Seven Plays, pp. xi-xiii. Theban
Plays, p. 9.

The Lenaea was a rural festival of lesser importance
and often served as a trial ground where the plays could be
taken "on the road."

The City Dionysia festival lasted for six days: On the
first day an image of the god Dionysus was taken by ceremonial
procession into the country for feasting and merriment; that
evening he was brought back in a torch light parade and placed
in the theatre orchestra. On the second day, the first com-
petition was held; this competition was among ten dithyrambic
choruses of fifty men each. On the third day, the second com-
petition--among five comedies--was held. A tetralogy (three
tragedies and a satyr drama) was presented on each of the
three remaining days. Each day a sacrifice was placed on the
altar of Dionysus before the plays began.

During the Peloponnesian War (431 B. C. to 404 B. C.),
the ceremony was changed from six to five days. The schedule
for the first two days remained the same; the last three days
each had a tetralogy in the morning plus two comedies on the
afternoon of the third and fourth days and one comedy on the
afternoon of the fifth day.

The tetralogies of the three competing playwrights
were selected to compete by a prior contest of numerous
entries. The scripts were judged during the Dionysia fes-
tival by five men who were chosen by lot. Prizes were awarded
to the winning poet; protagonist; and choregus, or wealthy
sponsor.

The _choregus_ was a private citizen who either volun-
teered or was chosen by lot to bear the cost of staging the
play and supplying and training the chorus. The state paid
the actors.

Ceremonial support. --During the era of the _City
Dionysia_ festivals, the arts flourished and received much
public and state support.[40] The festival itself was pro-
duced by the state (as a ceremony of the state religion)
at a public theatre. Originally the admission was free;
later, the state leased the theatre to an individual citizen
who could charge two obols (a nominal fee) for its upkeep.
If any spectator could show legitimate need, the state would
refund his two obols.

Because music and drama had permeated the domestic
and communal life of Athens, the audience was generally
brilliant, lively, and critical. All male citizens could
attend, and a good share of the voting population did.
Women, boys, and better educated slaves could attend the
tragedies; women could not attend the comedies. Seats were
reserved for magistrates, dignitaries, and priests.

---

[40]_Fifteen Plays,_ p. xiii. _An Introduction,_ p. 20.
Mahaffy, I, 239. Melchinger, p. 16. Moulton, p. 7.
Reinhold, p. 57.

Dramatic presentation
performers[41]

Personnel.--The actors in the ancient Greek dramas were
probably not chosen by lot but rather semi-permanently attached
to the playwright in some way. They were trained in declama-
tion so that their voices would carry to all spectators; ges-
tures and movements were large, simple, and impressive for the
same reason.

Costumes.--The costumes of the actors evolved from the
traditional dress of the Bacchic festivals and gradually be-
came more and more imitative of the specific characters.
However, costumes retained their allegorical significance,
dignity of proportions, and Bacchic brilliance and never
became historically correct. The large size of the costumes
frequently required padding for the actors.

Masks and wigs.--The actors and chorus all wore masks
and wigs, each designed for a specific type of person--king,
priest, slave, and so on. The masks had the advantages not
only of being visible for a greater distance than the actors'
features, but also of enabling any actor to play several parts
and/or to play the part of a woman. (All actors and chorus
members were men; this perhaps accounts for the somewhat
masculine women in Greek tragedies.)

_____

[41]Helena Chalmers, Clothes On and Off the Stage (New
York: D. Appleton and Company, 1928), p. 56. Fifteen Plays,
p. xii. Four Plays, p. ix. An Introduction, p. 25. Mahaffy,
I, 245-46. Moulton, pp. 16, 127-129. Reinhold, p. 57.
Seven Plays, p. xiii. Watt, p. 30

Footwear.--The actors only (not the chorus members) wore a thick shoe, or cothurnus, to increase their height.

Specific Understanding of Oedipus Rex

Oedipus Rex is one specific example of Greek tragedy.[42] The play was written by Sophocles in the last third of the fifth century during the height of his powers.

The figures are taken from a cycle of legend concerning the Theban royal house. Oedipus Rex can form the first play in the following continued narrative about the Theban royalty: Oedipus Rex, Oedipus at Colonus, Antigone. However, Oedipus Rex was not written as one play in the tragic trilogy of a Greek tetralogy in this series. Sophocles wrote Antigone first, Oedipus Rex some dozen years later at his zenith, and Oedipus at Colonus near the end of his life; each play is a unit in itself.

Oedipus Rex is structured with a prologue, parados, five episodes and stasima, and an exodos. The plot developes carefully allowing Oedipus to gradually become aware of who he is and what he has done. His awareness is accomplished, however, with dramatic irony, for at no point does Oedipus know as much as the audience.

Faultless technical development, strong dramatic irony, a truly tragic hero constitute three of the many reasons why

---

[42]Fifteen Plays, p. 162. Seven Plays, pp. 119-20. Theban Plays, pp. 13-16.

Aristotle used _Oedipus Rex_, more than any other drama, to exemplify his critical theories.

Oedipus Rex is frequently called a tragedy of fate, but Oedipus' failure to plead ignorance of his acts and his acceptance of moral responsibility for them indicate a more universal struggle of mankind.

The specific production of _Oedipus Rex_ at South Dakota State College Theatre on May 22 and 23, 1958 was frequently modified or clarified by an understanding of Greek drama. Further reference will be made to this chapter when script requirements for the technical designs are discussed.

CHAPTER III

DETERMINING THE APPROACH

TABLE OF CONTENTS FOR CHAPTER III

Part 1. General Considerations
in Approach Determination

BODY FOR CHAPTER III

General Considerations in
Approach Determination

The director as interpreter[1]

The task of transforming a piece of dramatic literature
into a dramatic presentation lies with the director in edu-
cational theatre. The execution of that transformation should
be in accord with the author's basic theme and ideas, but the
director is responsible for determining the particular inter-
pretation which will create the effect and values set by the
author. Consequently, it is the director (not the author) who
is responsible for the finished product in theatre.

As interpreter, the director must determine the type of
treatment for a given play, its dramatic and technical styles,
the acting style, and the overall productional approach.

The director as coordinator[2]

Theatre is a composite art in which the various elements
must be united to serve together as a harmonious and artistic
whole. Their unity demands a coordinated approach in accord
with the director's interpretation. Consequently, the direc-
tor must serve as the basic coordinator and designer of the
entire production. He must adjust the technical emphasis to

---

[1]Dolman, p. 2. Friederich, p. 32. Gassner, pp. 70,
185, 202, 211, 219-21, 272, 275-80. Heffner, pp. 87-88, 94.

[2]Dolman, pp. 57-58. Friederich, pp. 31-32. Gassner,
pp. 1, 211-12, 223, 273-74, 293. Heffner, pp. 5, 7-9, 30.

his interpretation through the use of line, color, mass, and design principles. Ideally, he should be a capable organizer thoroughly familiar with all aspects of the theatre.

As coordinator, the director must insure unity of production in accord with his approach.

Approach Determination Considerations
Applied to Oedipus Rex

The director's approach

The director for Oedipus Rex explained the basic productional considerations to be met in his interpretation of the script. As each technical design progressed, additional considerations and plans were discussed and approved by him.[3] The initial basic considerations included the following:

1. The classical nature of the play would be deemphasized somewhat.

2. There would be no attempt at reality in set, costumes, or lighting.

3. The religious nature of the play would be deemphasized.

4. The set should be huge, vast, simple, have numerous levels for blocking of chorus movements, and appear somewhat Grecian.

5. The costumes should be simple and appear somewhat Grecian; no cothurni would be worn.

---

[3]Following, pp. 91-92, 148-49, 190-92, 246-47, 263, 280-81.

6.   The lighting should be fairly intense.

7.   No masks would be used; makeup should be masklike and stylised, less so for the royalty.

8.   The colors should be predominantly cool.

CHAPTER IV

DESIGNING AND EXECUTING THE SET

TABLE OF CONTENTS FOR CHAPTER IV

Part 1. General Considerations in Set Design

Part 2. Set Considerations
Applied to Oedipus Rex

BODY FOR CHAPTER IV

General Considerations in Set Design

Styles of set design

and

Types of sets

Scenic styles (and types) are frequently used in com-
bination with one another, and none is always clearly differ-
entiated from all others. The label applied to a given set
by different people may differ, but what is important is that
the persons designing the production know what the set will
look like and what impression it will give.

Chapter I, Selecting the Script, includes a discussion
of the styles and types of set design.[1] Consequently, only a
brief tabular listing of each is included here in Tables 2 and 3.

Elements of design

The elements which express a design are line, color,
and mass.[2]

Line in design

Realistic line.--In nature there are boundaries or outer
descriptions between areas. In design, boundary is communi-
cated by the use of lines to delineate form.[3]

---

[1]Above, pp. 15-19. [2]Friederich, pp. 88-123. Heffner,
p. 154.

[3]Dolman, pp. 51-52. Friederich, p. 89. Gassner, p. 318.

TABLE 2

STYLES OF SET DESIGN

		Copies reality	But reduces it to its essence	And modifies the essence
Attempted realism	Naturalism	Yes, with real objects	No	No
	Realism	Yes, with stage objects	No	No
Modified realism	Simplified realism, or symbolism	Yes	Yes, and records the essence in detail	No
	Impressionism	Yes	Yes	Yes, by recording only the basic line(s) and/or mass(es) of the essence
Non-realism	Stylism	Yes	Yes	Yes, by exaggeration in accord with the designer's understanding of the script
	Expressionism	Yes	Yes	Yes, by exaggeration in accord with the central character's mind
	Theatricalism	Yes	May or may not, but does not camouflage the fact that it is stage scenery	
	Construction-ism	Yes	Yes	Yes, by including only the utilitarian basic structure
	Formalism	No, presents merely an acting area		

TABLE 3

TYPES OF SETS

Shifting set	Unit set	Rearranged flats, plastic pieces, and stage properties
		Permanent basic structure with altered decoration
		Reversible set
		Screen set
	Curtain set	With stage properties
		With cut-down scenery
	Book set	
	Prism set	
	Tracks	
	Wagons	
	Discs	
	Revolving stage	
	Flown set	Drops
		Scrims
		Flats
		Other
Permanent set	One locale set	
	Multiple locale set	
	Light set	

Expressive line.--Line also has expressive, or symbolic, delineation taken from shapes in nature.[4] "From the dawn of man's awareness, certain recurring lines have had the capacity to express feelings."[5]

Straight lines connote strength, hardness, austerity, and in people are associated with adolescents or the very old; curved lines connote softness, grace, gaiety, sometimes age (worn by wear) and in people are associated with the very young or fat, middle aged people.

Heavy, jagged lines (as in a rugged mountain top) connote enduring strength, violence, energy, excitement, anger.

Verticle lines (as in tall trees, mountains, and columns) connote majesty, strength, dignity and (as in height and the heavens) connote inspiration, reverence, exalted emotion.

Horizontal lines (as in sky and sea) connote stability, serenity, repose, placidity, or even monotony and (as in huts, caves, and tombs) connote oppression, poverty, earthiness.

Diagonal lines (uncommon in nature, seen in lightning and falling and other distorted objects) have great attention value and connote distortion, unreleased tension, power and force, instability, vehemence, the dynamic and dramatic.

Lines bending downward (as in weeping willows, bowed old persons, and withered plants) connote sorrow, depression, negation.

---

[4]Dolman, p. 70. Friederich, pp. 89-97. Gassner, pp. 400-401. [5]Friederich, p. 90.

Heavy, curved lines connote pomp, luxury, elegance.

Light, wavy, bilious lines connote fun, joy, lightness.

Fast lines are straight or only slightly curved lines which permit the eye to move swiftly; slow lines are broken and interrupt the eye's movement.

Crossed lines connote conflict, especially if they are crossed diagonally.

It must be remembered that a set cannot be designed only with a consideration of the symbolic nature of lines; the period in history, the line of the object(s) in reality, other design elements, and/or design principles (notably variety) may alter the use of line symbolism. But, although it is unwise to utilize line symbolism without making other necessary considerations, it is equally unwise not to utilize line symbolism if it will also meet the other requirements of the set design.[6]

Decorative line.--Dressing the set with draperies, stage properties, costumes, and so on should also be done with careful consideration of line.[7]

In the use of lines, it is of vital importance to achieve unity with variety. Such an achievement will necessarily vary with each set design, but some general considerations can usually be applied to any set.[8] (1) Use a limited number of kinds of lines and a limited extreme variation of the chosen

---

[6]Friederich, p. 92. [7]Ibid., pp. 97-99. [8]Ibid., pp. 99-100.

kinds of lines (for unity). (2) Generally use more than one
kind of line (for variety). (3) Have a predominant kind of
line used roughly sixty percent of the time or more (for
unity). (4) If realism limits line variety in set design,
achieve line variety in set dressing.

Color in design

Color definition.--Color consists of three character-
istics--hue; saturation, or intensity; and value.[9]

Hue is the yellowness, blueness, redness of color.

Saturation, or intensity, refers to the purity of a
color, the amount of complementary hue in its composition.
Mixing a hue with its complement will gray it. Pure comple-
mentary pigments will produce neutral gray in a given mixed
proportion; but paint pigment hues and purities sometimes
vary this general rule.

Value is that characteristic of color which makes a
hue vary from nearly as light as white (pale pink) to nearly
as dark as black (red-black). The value of a hue can be
altered by mixing black or white with it to produce a shade
or a tint respectively.

---

[9]Richard Corson, Stage Makeup (2d ed.; New York:
Appleton-Century-Crofts, Inc., 1949), pp. 12-15. Dolman,
pp. 345-47. Friederich, pp. 101-104. Gassner, p. 113.
Heffner, p. 298.

Color harmony.[10]--To utilize color harmony, one must understand the relationship among colors.

The three primary pigment hues--red, yellow, and blue-- can be mixed to produce any other pigment hue. The three secondary pigment hues--orange, green, and purple--are produced by mixing two primaries--red and yellow, yellow and blue, and blue and red respectively. Color hues can be thought of as lying on the circumference of a circle--red, orange, yellow, green, blue, purple, red. Between each primary and secondary hue is a tertiary hue--red, red-orange, orange, yellow-orange, yellow, yellow-green, green, blue-green, blue, blue-purple, purple, red-purple, red. Between any two of the above hues are various gradations of hues running from one hue into the next.

Hues opposite one another on the wheel are complementary hues--red and green, blue and orange, yellow and purple, and so on. Hues adjacent to one another are analogous hues. Various values of the same hue are monochromatic colors.

Complementary color harmony.--Complementary colors are harmonious if (1) separated by neutral colors (grays or earth colors), (2) subdued in intensity, or (3) of very unequal proportions.

Split complementary harmony.--Instead of balancing one color by using its complementary color, one can balance a

---

[10]Dolman, pp. 345-47. Friederich, pp. 104-108, 111-12. Gassner, pp. 404-407. Heffner, pp. 298-99.

color by using two colors equally distant from the complement. For example, instead of balancing blue with its complement orange, blue can be balanced with red-orange and yellow-orange.

Triad color harmony.--If split complementaries are equally distant from one another and from the basic color (as red, yellow, and blue are), the harmony is known as triad harmony. Such a combination easily becomes violent, and the triads must be used in extremely unequal proportions.

Analogous color harmony.--Hues adjacent on the color wheel may be used in combination (1) without intermediate neutrals and (2) in fairly full intensities.

Monochromatic color harmony.--Successive values of the same hue can be used together easily. The primary disadvantage in monochromatic color harmony is lack of contrast and expressiveness.

General color harmony.--The larger the surface areas, the lower the intensities should be. Small areas of bright color can balance large areas of neutral color. Neutrals can be used together in any combination, but are dull unless brighter colors are used with them. Nearly any colors of high intensity clash; nearly all pastels harmonize. Lower values have greater weight and dignity than higher values.

Color expressiveness.--The general expressiveness of a color depends upon its relative lightness and warmness.[11]

---

[11]Wayne Bowman, Modern Theatre Lighting (New York: Harper & Brothers, 1957), pp. 94-95. Friederich, p. 109. Heffner, p. 298.

Relative lightness is determined by a color's value; relative warmness is determined by its symbolic nature. Green, blue, and purple by association with the ocean, sky, grass, and ice are cool colors; red, orange, and yellow by association with fire and the sun are warm colors. A light, warm-colored setting (whether by paint, lighing, or both) connotes comedy; a dark, cool-colored setting connotes tragedy. Any combination of dark-warm, dark-cool, light-warm, or light-cool may be used. However, dark, light, cool, or warm should predominate for unity, emphasis, and good proportion.

In addition to its general expressiveness each color has unique symbolic connotations taken from nature.[12] Color symbolism can be expressive, clear, and beautiful or it can become so involved that it is relatively unclear and confusing. Some of the generally accepted symbolic significances of color are listed in Table 4.

Mass in design

Realistic mass.[13]--In reality, mass can be generally classified as biomorphic (free form; shaped like living plants and animals) and geometric (cubes, cylinders, pyramids, cones, and other geometric solids).

_____

[12]Bowman, pp. 92, 94-95. Dolman, pp. 345-47. Friederioh, pp. 109-11.

[13]Dolman, pp. 51-52. Friederich, pp. 115-16.

TABLE 4

COLOR SYMBOLISM

Color[a]	Symbolizes	From nature
Sat. Blue	Stability, firmness, spiritual peace, truth, dignity, intelligence, modesty, constancy, quietness, coldness, lack of sympathy, success	Sky, sea, ice, and heavens
Unsat. Green	Decay, envy, jealousy, calm, rest	Decayed vegitation
Sat. Green	Growth, vitality, youth, health, hope, springtime, inspiration, eternity	Growing vegitation
Unsat. Yellow	Decay, deceit, jealousy, inconstancy	Decayed vegitation
Sat. Yellow	Harvest, fruitfulness, wealth, hope, warmth, gayety, joy, love, gold, royalty, power, dignity	Sun, fire, ripe grain
Sat. Orange	Passion, vitality, mild unrest, domesticity	Sun, fire, harvest
Sat. Red	Warmth, excitement, ardent zeal, passionate love, cruelty, murder, guilt, shame, hatred	Sun, fire, blood
Red-violet	Royalty, dignity, solemnity, victory, martyred truth	Ancient royal cloth
White	Coldness, winter, chastity, purity, innocence, virgins, ghosts, angels, priests, saints, deities	Ice, snow, cleanliness
Black	Death, mourning, widowhood, despair, depression, mystery, magic, sin, witchcraft, satan, monks, nuns	Night, caves, tombs
Clear Brown	Earthiness and simplicity	Earth
Dingy Brown	Filth, famine, poverty, degradation	Serfdom

[a]Sat. means saturated; Unsat. means unsaturated.

In sets, biomorphic forms are most frequently used in furniture, mountains, rooks, trees, and so on. Because of their difficult construction, they are generally limited in a set design or used in two-dimensional form with the third dimension painted on.

Geometric masses predominate in set design, for they are more common in reality and more easily reproduced.

Expressive mass.--The apparent weight and/or size of mass is one of its greatest expressive elements, but it has other symbolic delineations similar to those of lines.[14]

Curved mass connotes grace, femininity, rhythm.

Cubic mass connotes weight, strength, tyranny, power, stability.

Slabs of mass are lighter and faster than cubes and are comparable to lines in symbolic connotation.

Diagonally tilted mass carries the same connotations as diagonal lines.

Mass may be given additional expressiveness by its placement on the stage, for stage areas (all other things being equal) have expressive connotations, too.[15]

Down center is the strongest stage area and is ideal for conflict and climax.

---

[14]Friederich, pp. 116-21.

[15]Ibid., pp. 36-37. Heffner, p. 100.

Up stage center is the second strongest stage area and
may be used to remove the conflict somewhat or to display
authority or regality.

Down stage right is the warmest and most informal stage
area and is useful for the warmest scenes.

Down stage left is more cool and removed and is useful
for intellectual conflict, business dealings, and so on.

Up stage right by being more removed than down right
is useful for more formal and restrained emotions.

Up stage left is the most distant spot on the stage
and is frequently used for the appearance of supernatural or
mystical beings.

It must be remembered that expressive use of mass is
not the only consideration in scene design, but, if it coor-
dinates with other design considerations, it can be most effec-
tive.[16]

Decorative mass.[17]--The decorative use of mass is in-
tegrally a part of its expressive use. Reality frequently lim-
its the use of mass for expressive and decorative purposes.

Negative mass.[18]--The opposite of mass is space, and
sometimes an effect (particularly a grand and expansive one)
is created by lack of mass. If a set is obviously in need of
design improvement, elimination of some elements (s) rather

_____

16Friederich, p. 36.   17Ibid., pp. 121-22.
18Ibid., pp. 119-21.

than addition of more will frequently correct the obvious
impropriety in design.

Unity with variety is of great importance in the use of
mass, too.[19]   (1) Use a limited number of kinds of mass and
a limited number of variations of one kind (for unity).   (2)
Use at least two similar forms (for variety).   (3) Have one
dominant form (for unity).   (Remember that stage props are
an important and integral part of the set masses.)

Principles of design

The purpose of the set design is to enhance the play
by helping create the right mood and setting;[20] this includes
concealing what should not be seen, decorating, suggesting or
portraying reality, and (of greatest importance) adding to the
emotional and thematic content of the play. A set achieves
its purpose by utilization of the design elements in accordance
with the principles of design--unity, variety, emphasis, bal-
ance, rhythm, proportion, and grace.[21]

Unity

Learning, understanding, interest, and pleasure all
depend upon unity. In a set design, unity must center around

---

[19]Ibid. pp. 122-23.

[20]Dolman, pp. 292-94. Gassner, pp. 99-102, 227, 318.
Heffner, pp. 209-12.

[21]Dolman, pp. 54-72. Friederich, pp. 99-100, 112-14,
122-35. Gassner, pp. 103-104, 318-20. Heffner, pp. 154-59,
310-11.

the content and meaning of the play and must be reflected in the line, color, and mass of the set design.

Variety

Unity alone will not retain interest; there must be varied and new factors, too. However, new factors must be related in a subordinate way to the unity.

Emphasis, or contrast

The factors, ideas, or moods which should be predominant in the play and set must be superordinated over those of lesser importance.

Balance

Bisymmetrical design in which one side of the stage mirrors the other side is useful only for formal, austere, or artificial plays. However, asymmetrical, or informal, balance is essential for any other play. To achieve balance in a set design, one must consider line, color, mass, and stage lighting simultaneously, for good balance in one element can be completely destroyed by imbalance in another.

Rhythm, or continuity

Some reourrance of pattern is necessary in set design to insure unity. Monotonous repeats (such as office windows) provide unity but not variety. Progressive repeats or scattered repeats provide unity with some variety. Generally at least two

recurring patterns should be used in a set, but their proportions should not be equal.

Proportion

It is seldom wise to use equal proportions of two factors unless conflict is desired. However, nearly any proportions of factors may be used in a composite design if they are carefully integrated into a unified pattern. Perhaps the most pleasing proportion is the golden section, roughly a ratio of thirty-eight to sixty-two, which was used by the ancient Greeks and has for a long time been considered by many designers as the most beautiful purely abstract proportion.

Grace

Grace does not imply a lack of strength but rather a lack of misapplied or misdirected effort.

Producing a set design

Information required

Basic requirements.--It would be humanly impossible to have complete command over the utilization of design elements and principles in such a way as to produce a given set which would convey a given play most clearly to the greatest number of the given audience. The great plasticity of the aesthetic values of design and the innumerable variables in set designing

make designing a set one of the most uncertain (as well as most challenging, ever new, and instructive) theatre tasks.[22]

However, one can attempt to lay a strong basic knowledge in set design by serious study of design in the arts--literature, drama, music, art, dance, sculpture, and so on; by study of great works of art; by collection (both in the mind and in scrap books) of numerous kinds of constructed and natural objects; by actual set designing for a variety of play styles in a variety of scenic styles and types; by construction and painting of sets; and by living with perceptual awareness of the design and beauty throughout any environment.[23]

Script requirements.--From the script the designer learns how to formulate his design in accord with four basic considerations.[24]

1. The external world of the play--the year, the place, the season, the time of day, the specific building or outdoor location--will be projected largely by the set. The external world may be of vital importance to the play or it may be largely undefined and unimportant.

2. The people in the play--their tastes, prejudices, talents, stature, interests, and their personality as determined

---

[22]Friederich, pp. 1-3.

[23]Dolman, p. 48. Friederich, pp. 1-245. Gassner, p. 311. Heffner, p. 153.

[24]Friederich, pp. 25-30, 75-77. Gassner, pp. 227, 301-304, 311-12.

by their total environmental and hereditary conditioning--
can be effectively and carefully defined by the set.

Understanding of the external world and/or the people
may require careful and accurate research by the set designer.

3. Projection of a play's theme and mood by set design
may be difficult, but it is of importance in any play and vital
in plays which are written in the style of symbolism or expres-
sionism.

4. Action requirements--doors, windows, telephones,
bookcases, and so on--must be integrated in the design.

Director's requirements.--It is the director who deter-
mines the mood and style of the play as well as the scenic de-
sign style and perhaps type of set.[25] The set must follow
very closely the director's demands regarding style and block-
ing of movement and must be accepted by him before construction
plans progress.

Other technical design requirements.--In order to have
the most unified and clear production possible, all technical
areas must be integrated to coordinate with the productional
mood and style.[26] This requires joint technical meetings as
well as technical meetings with the director.

If lighting is of predominant importance in a show, the
set will necessarily be modified in accord with the prior

----

[25]Friederich, pp. 31-48. Gassner, pp. 227-35, 303-304,
315. Heffner, pp. 102-103. [26]Friederich, p. 32.

design of the lighting. Occasionally, costumes are of pre-
dominant technical importance and largely determine the set
design. And quite frequently the set is of predominant impor-
tance in the technical designing. However, there must be
close cooperation and integration among all productional
workers and work regardless of the time order and predominance
in the technical designs.

Set colors must be carefully integrated with costume,
prop, and light colors. The pigment colors of the set are
selectively reflective--they reflect only light rays corres-
ponding to their color and absorb all others. Consequently,
color in the set is enriched by the same color in light and
is dulled by its complementary, tints in light color have less
effect upon the pigment than do saturated hues, and saturated
set colors need stronger illumination than tints. Only actual
work with and testing of set and light colors will enable one
to know the activity of pigment colors under stage lighting.[27]

Equipment requirements.--Set design must take into
consideration the three relatively inflexible physical factors
of stage size, sight lines, and shifting facilities.[28]

---

[27]Bowman, pp. 99-101. Corson, pp. 26-32. Dolman, pp.
342-45. Friederich, pp. 54-55. Gassner, pp. 113, 786.
Heffner, pp. 367, 369-72.

[28]Friederich, pp. 41-45, 49-54, 56-59. Gassner, pp.
94, 316-18, 413. Heffner, pp. 154, 229.

Stage size.--Seldom is a stage too large; if it is, the set can quite easily redefine its limits. Often a stage is too small and increasing its limits may be nearly impossible. The stage can be made to appear larger by using light colors on the wall surfaces, large deep windows, small furniture of light color and weight, clear undecorated wall spaces, and so on. Or the floor space can sometimes actually be increased by extending the apron. There are, however, great limitations as to what can be done to increase the size of a stage.

Sight lines.--If the length of run and average audience size make it possible, the seats in the house which greatly limit or affect sight lines can be left unsold.

Shifting facilities.--Limitations in flying space or other shifting facilities and room can sometimes be counteracted by the type of set.

Other equipment considerations for the set designer are availability of the stage, constructed set pieces, labor and time, tools and materials, lighting facilities, and budget.[29]

Stage availability.--If the stage is utilized for many and varied purposes (as is frequently the case in educational theatre), it may be necessary to design a set that can be mounted in a limited time (one day or less).

----

[29]Friederich, pp. 54-56. Gassner, pp. 107, 335-38.

Constructed set pieces available.--Most theatres have (and continually add to) a supply of flats and plastic pieces--steps, platforms, columns, and so on. The number and kind of set pieces available at a given time may greatly affect the design.

Time and labor available.--The number, experience, and ability of stage hands available is a direct factor in set design and execution. Limited labor and/or time necessarily limits the amount of construction, painting, and so on that can be done in executing the set.

Tools and materials available.--If the tools and materials for a given construction are not or cannot be made available, that construction cannot be used.

Lighting facilities.--Although lighting facilities are the direct concern of the light designer, they must also be considered by the set designer, for they are of vital importance in projecting the set. "Compensate for inadequate lighting equipment with detailed realism of design and execution, and attempt simplification of setting only when the lighting is able to bear more than fifty per cent of the burden of the effect."[30]

Budget available.--If the budget is small, the set may be limited to reuse of available materials and/or few and inexpensive new additions.

---

[30]Friederich, p. 55.

Graphic recording of a set design

Because the set provides the physical boundaries and often a major portion of a play's external environment, it is important that its size, color, line, and mass be readily known to the director, cast, and technical designers and crews. There are several ways to graphically record a set--floor plan, sketches, elevation drawings, and model. The given type of set will help determine the ways which will best communicate the design to the members of the production.[31]

Floor plan.--One graphic record that is essential for any show is the floor plan--a top view of the stagehouse showing utilization of floor space.[32] The floor plan will reveal whether there is sufficient space on and off stage, whether sight lines have been violated, whether the set is self consistent (logical relationship of outer and inner walls, furniture placement, and so on), whether there is variety and balance in the stage limits, whether the set lends itself to the blocking of the production, and whether the set is feasible for other technical work like lighting.

The floor plan may be the initial step in actual designing of the set if the stage is of a small or irregular shape or if the designer can more easily use such an approach.

[31]Ibid., p. 78

[32]Ibid., pp. 78-88. Gassner, pp. 106, 310, 312-16. Heffner, pp. 95, 302, 304.

Sketches.[33]--On the other hand, if the designer prefers, he may start his work by sketching possible designs. (Neither way of beginning a design is better than the other. The choice is necessarily subjectively dependent upon the designer.[34])

A sketch pictures the set as it would appear from an ideal seat in the auditorium. It may be in water color, charcoal, colored chalk, colored pencils, ink, or pencil; the choice is a subjective one belonging to the designer.[35]

The sketch reveals the quality of the design--its unity, variety, emphasis, balance, rhythm, proportion, and grace as achieved by line, mass, and color. (Regardless of the type of sketch, color must be added to it at some point of the design.) From the completed sketch, one will learn whether the mood, theme, and external world of the play have been captured with accuracy. The color in the sketch will be additionally helpful for the costume and light designers as a check upon color integration in the technical designs.

Elevation and working drawings.[36]--An elevation drawing shows the set walls or other pieces in accurate scale without perspective as viewed from the front, side, and/or back.

---

[33]Friederich, pp. 88, 136-54. Gassner, pp. 307, 310, 312-16. Heffner, pp. 302-304.

[34]Friederich, p. 77.   [35]Ibid., p. 88.

[36]Friederich, pp. 155-64, 168-70. Gassner, pp. 106, 312-16, 683-86.

Front elevations are useful in design (indicative of color,
line, and mass in accurate detail) and working drawings
(clearly indicative of size and design). Side and back draw-
ings are especially useful as working drawings and indicate
measurements, built-on or built-in units (in side elevations),
construction details, hardware location, and special flying
or assembling instructions or additions. From working draw-
ings, the necessary materials, as well as the construction
details, can be ascertained.

Sometimes elevation-working drawings are not sufficient
for the construction instructions and additional cross section-
al drawings, detail drawings, and/or isometric drawings (three
dimensional, unperspective drawings with parallel lines paral-
lel and not ultimately converging) must be made also.[37]

Model.[38]--A model may or may not be a part of the de-
signer's record. If it is used, it will often substitute for
one or more of the other design steps--the sketch and/or the
elevation drawings. It may, however, be built in addition to
the other steps as an added check on the design before con-
struction begins. The model (depending upon the type of set
and the ability of the designer to build an accurate model)
may be additionally useful to the actors and director in

_____

[37]Friederich, pp. 165-68. Gassner, p. 685.

[38]Friederich, pp. 171-78. Gassner, pp. 312-16.
Heffner, pp. 302, 304-307.

visualizing stage business and movement and to the light de-
signer in trying lighting effects.

Execution of a set design

Construction.--Construction is frequently one of the
most time consuming tasks in production of a show. If time
and labor are minimal, construction may be reduced by reuse of
available constructed pieces and/or use of minimum scenery in
the design. A work schedule should be formulated to insure
that the construction will be completed on time.

Painting.--Any set properly designed in accord with
color is almost certain to require painting even if available
set pieces are reused. The appearance of the set is largely
due to the way in which it is painted; consequently, it is use-
ful to know some painting techniques and the effect they will
create.[39]

Flat painting.--The paint is brushed on smoothly, even-
ly, and quickly. This is an excellent way for laying on the
base coat, but the surface will need texturing (unless the
surface itself is textured as in stucco) to help give the
appearance of highlights and lowlights under stage lighting.

Scumbling.--A fairly wet brush is passed lightly and
with long free strokes in various directions over part of the
base coat. This creates the effect of a rough uneven surface

[39]Gassner, pp. 332, 758. Heffner, pp. 287-89.

as in some plaster walls, foliage, and so on. Several colors
may be used simultaneously, and spattering often follows this
technique.

Dragging, or dry brushing.--The technique is similar to
scumbling but differs in that the brush is drier and the
strokes are straighter. Dragging, or dry brushing, creates
an effect of wood grain.

Sponging.--A large sponge is dipped into paint, squeezed
out, and patted gently on the base coat. Care must be taken so
that the covering is even, unspotty, and of a continuous textur-
al pattern. Spattering produces a rough or patterned surface.

Rolling.--A piece of coarse cloth is dipped in paint,
wrung out, and patted or rolled over the base coat. Rolling
gives the effect of old plaster or rock.

Spattering.--A brush full of paint is shaken or snapped
by the wrist so that drops of paint fall on the base coat.
Care must be taken to make the spots even and of a fairly large
(but not small pool) size. Spattering gives the impression of
a naturally textured plain surface and is frequently used with
other methods to create various effects.

Stippling.--A medium-full brush is touched (bristles
perpendicular to the surface) against the base coat. Stippling
creates a plain textured surface.

Glazing.--A thin, transparent wash of color is brushed
over another color or colors for the purpose of blending or
toning.

Spraying.--Spraying may be used either to put on the base coat or to texture it in a manner similar to spattering or stippling.

Except in the case of scumbling, the texturing should be applied to dried base or other texture coats.

Other.--Certainly these are not all the possible techniques for scene painting. Actual work in scene painting will reveal many individual painting techniques, for scene painting is a fascinating and uniquely creative art in itself.

Mounting the show.--Mounting of the show by addition of technical elements generally begins with the addition of the set.

Setting stage.--Putting the set on stage requires time, labor, and the availability of the stage and must be carefully scheduled.

Set rehearsal.--Set rehearsal is for the actors to become accustomed to the set and for the set designer to check the set--for workability of doors, windows, and other set pieces; adaptation to blocking; integration with direction; and so on ad infinitum.

Other technical rehearsals.--Addition of lighting, costumes, props, and other technical elements may require alterations in the set, particularly in its color.

Dress rehearsal.--By the time dress rehearsal is reached, the set should be completed.

Striking set.--Plans must be made to strike set after the last performance and to return to proper storage everything used in the show.

Set considerations Applied
to Oedipus Rex

Information required
for the set design

Script requirements

The external world of the play is clearly unrealistic[40] and, therefore, subject to any modification or design at the director's discretion; perhaps some Grecian symbolism would be advisable.

Action would appear to require a permanent set in one locale,[41] a doorway into a palace, an altar, and adequate space for a chorus (if used).

Director's requirements

The director's interpretation and specific set requirements were as follows:

1. The classicism of the script would be deemphasized somewhat.

2. Reality would not be attempted in the designs.

3. The religious nature of the play would be deemphasized.

4. The set should be simple, unornate, huge, and spacious.

---

[40] Above, p. 45.   [41] Above, p. 47.

5. There should be huge palace doors.

6. There should be an altar.

7. There should be multiple levels for chorus move-
ments.

8. The set would be one permanent locale.

9. Some Grecian symbolism should be used (such as col-
umns). A marbled appearance would be acceptable so long as the
marbling would be sufficiently subdued not to attract attention
to itself.

10. Although the director had been thinking in terms of
a bisymmetrical set, an asymmetrical one would be acceptable.

11. There would need to be entrances from both wings
sufficiently large to admit the chorus of fifteen.

12. Cool colors of low saturation and value would be
used.

Other technical
design requirements

The set took predominance over all other technical
areas except that its color was determined in accordance with
the costume design. Blue, the coolest color, was used as the
base color; analogous colors were used for variety, balance,
and proportion. Blue-green and blue-red (purple), analogous
cool colors, were used. Red-orange, an analogous warm color,
was used especially for the warmer, more passional, most
differentiated royal characters. The exact color choice was

determined by the costume designer, for it is generally easier to mix paint pigments to match a given color than it is to dye cloth to match a given color.

Equipment requirements

Stage size.--The best way to achieve a feeling of space is to use negative mass, that is, to limit the amount of mass. In order to have huge doors and a feeling of hugeness, some large mass must be present. Consequently, to achieve hugeness and spaciousness simultaneously on an eighteen feet deep stage necessitates a compromise in how huge the mass can be and how vast the space can be.

Two pieces of mass were necessary--the palace doorway and the altar.[42] Bisymmetrical placement of the palace doorway in stage center would necessitate placing the altar down stage center to retain the bisymmetricalism. Achieving a spacious feeling and utilizing many levels would seem more difficult with the two units of mass placed in the plane of the limited stage depth than with the two units of mass placed in the plane of the more ample thirty-eight feet stage width. Consequently, asymmetrical balance was chosen in preference to bisymmetrical balance.

Sight lines.--Sight lines both in stage width and stage height are limitations in the State College Theatre. Half of the width of the stage rear wall is cut off from part of the

[42]Above, p. 92

house, so the palace door entrance would have to be within the central area visible to the entire audience. Nearly all of the wing area is visible to part of the house, so the wings would have to be thoroughly masked and yet permit entrance for fifteen chorus members.[43]

Part of the feeling of space could come from verticle space, or height; however, this, too, would be limited by sight lines in the State College Theatre. With a maximum raising of the act teaser (fifteen feet) only ten and one-half to thirteen feet of the real wall height would be visible to the balcony audience, and the lighting instruments and rear wall movie screen would need careful masking by teasers for the main floor audience, especially those in the front rows. Consequently, verticle spaciousness would be greatly limited, too.

Shifting facilities.--Although scene shifting space is greatly limited at State College Theatre, the permanent set and minimum props would reduce the amount of fly and wing area necessary.

Stage availability.--Mounting large masses of many levels with limited labor and working hours would require several days of stage usage. In addition, levels should be available to the cast for rehearsal well in advance of the production dates. The stage at State College is scheduled not by the drama department, but by the Registrar and Student Affairs Offices and occasional

[43]Above, p. 92.

other means. Consequently, before a massive set could be de-
cided upon, it was necessary to check with the Registrar and
Student Affairs Offices about stage scheduling. From those
offices the following was learned:

1. The Community Concert listed in the school calen-
dar for the stage on May 12 had been moved to the gymnasium.

2. The choral concert listed for May 13 was apparently
a school calendar misprint.

3. On May 14 the Women's Day morning assembly would
be held on the stage.

4. The Beauty Pageant scheduled for the stage and
listed in the calendar as May 16 had been changed to May 8.
(This change in date was fortunate; the May 16 date would have
made setting a massive set impossible.) The Beauty Pageant
preliminaries would be held in the Union Ballroom.

5. On May 20 the film series movie was scheduled for
showing elsewhere.

6. On May 22, the Memorial Day Assembly was scheduled
for the outdoor theatre; weather might force it into the theatre.
However, since this was the day of the first performance, the
set would have to be mounted by that date regardless of its
style or type.

Both offices were asked to notify the speech department
if additional scheduling occurred.

From the above data it appeared that the only strong
stage conflict between May 8 and May 22 would occur on May 14

when the Women's Day morning assembly would be held on the stage. There was the possibility that the Women's Day assembly could be worked around partial mounting of the Oedipus Rex set, so the Women's Day Committee was next contacted. The presentation of the ten top freshmen women scholars would probably occur before the act curtain; the two other parts of the morning assembly--a one-act play and a Pasquette performance--were each under the jurisdiction of their respective directors. Both directors were contacted and both integrated their ideas and set plans around a partially mounted Oedipus Rex set unit. The Student Association agreed to stage their May 8 Beauty Pageant on a twelve and one-half foot deep stage. It must be emphasized that without the integrated plans and compromises of all the above groups, the particular set of mass and levels would have been impossible to mount by production date. But, as a result of the integrated effort, the following tentative general schedule was set up:

1. On Saturday, May 3, the final performance date of Oklahoma!, the Oklahoma! set would be struck, a black drop would be hung at a twelve and one-half foot depth for the Beauty Pageant backdrop, and the platforms and large set pieces for Oedipus Rex and Women's Day would be stacked on stage between the black drop and rear wall.

2. On Monday, May 5, the Women's Day staging would be painted and stored in the stage left wing.

3. On Tuesday, May 6, the Beauty Pageant set would be constructed, painted, and stored in the stage left wing. (It must be remembered that the stage was at this same time being used in late afternoons and evenings for the Women's Day one-act rehearsals, Beauty Pageant rehearsals, and Oedipus Rex rehearsals.)

4. On Wednesday, May 7, the stage would be set for Beauty Pageant dress rehearsal.

5. On Thursday, May 8, after the show, the Beauty Pageant set would be struck.

6. On Friday, May 9, work would begin on mounting the Oedipus Rex set.

7. On Saturday, May 10, additional work could be done on the Oedipus Rex set, and stage would have to be set for the Women's Day one-act and Pasquette shows. By the time this date was reached in the schedule, a student music recital had been set for Sunday, May 11, and the Community Concert was rescheduled for the stage on Monday, May 12. (The later re-scheduling was done on May 6 after the set had been completely designed, construction was well under way, and blocking had been rehearsed for the designed levels. Fortunately the con-cert group was a small brass ensemble and did not need the full stage depth.) The additional changes in the stage sched-uling made it necessary to set the stage on May 10 for the student recital (piano included) on May 11, the Community Con-cert group on May 12, and the one-act play and Pasquette

performance (piano included) on May 14. All these sets had to be planned with integrated concealment of the partially mounted Oedipus Rex set.

8. One additional unreported scheduling of a film on May 17, after the set had been fully mounted, entered the schedule. Fortunately, the film was able to be shown elsewhere.

9. On the opening day of the show, Thursday, May 22, the Memorial Day Assembly was held outdoors. However, for a time it was felt that it might be held in the theatre, and the teasers, altar, and follow spot were all moved without the knowledge or supervision of the technical director. Alterations in the set were readily perceived and corrected; however, the soft edged focus that had been adjusted on the follow spot had (unknown to the Oedipus Rex technical crew) been altered to a clear hard edge which was cast on the blinded Oedipus during the opening performance.

Time and labor available.--The close production dates and relatively large casts of Oklahoma! and Oedipus Rex made backstage workers and time most limited. Consequently it was necessary to use predominantly those set pieces which were already constructed and available.

Other equipment available.--The plastic pieces available would undoubtedly limit the particular shape of the masses, but would be sufficiently numerous to provide several levels. Construction and painting facilities and equipment would be

generally sufficient. Although lighting facilities are limited
at State College Theatre, they could be adapted to a permanent,
formalistic-symbolistic set.

Graphic recording of
the set design

Producing the design

Designing a set is naturally a very individual art,
but some of the general considerations of this particular de-
sign will be listed as an indication of one way to apply some
of the design considerations.

Design began with the two basic pieces of base--the palace
doorway and the altar. Because the altar was less subject to
the demands of realism, it was chosen as the first piece for
detailed designing.

Designing the altar unit.--That the altar should balance
the palace doorway, appear Grecian, be usable by the chorus,
and require minimum construction were the general considerations
in its design.

The altar design started with rough thumbnail pencil
sketches. When a general sketch of a rectangular altar with
column support was tentatively decided upon, the measurements
were worked out in accordance with the considerations in reality
and the golden section. The following considerations were taken
from reality:

1. An approximate altar height (for a kneeling posi-
tion) is from the knees to the middle of the upper arm, rough-
ly twenty-eight inches.

2. A roughly comfortable kneeling height is ten inches
from the floor.

3. A roughly comfortable kneeling surface depth is
ten inches deep.

4. Newspaper tubing (a possible stage substitute for
a column) has a diameter of four inches.

The dimensions were then applied to some principles of
balance and proportion. In order to determine whether the
newspaper tubing would be satisfactory, a scale drawing of a
column four inches in diameter (the diameter of newspaper tub-
ing) and twenty-eight inches high (rough altar height) was
made. The proportion appeared satisfactory and pleasing and
was a rough multiple of the golden section.

In the sketch, the columns had been placed approximately
one column diameter distance apart; however, putting a base on
each column would make a greater space between columns seem
desirable, so twice the diameter of the column (eight inches)
was used between the columns. An approximate six foot altar
length (including the kneeling base) was selected. This would
make a 10" (kneeling depth), 4" (column depth), 8" (space be-
tween columns), 4", 8", 4",8", 4", 8", 4", 10" division of the
six feet possible. The 28" high altar mass would be 52" long;
with the golden section, the width should then be approximately

thirty-two inches. By using three columns in a 10", 4", 8", 4", 8", 4", 10" arrangement, the altar mass was 28" deep, and the kneeling base was 4' by 6'. These dimensions were all adequately pleasing and tentatively recorded. The later columns would need backing, preferably not touching them. A 3' by 1' by 28" high rectangular solid would allow 4" between the solid and the columns. Thus, the tentative top working drawing for the altar became Diagram 1, the tentative side working drawing became Diagram 2, and the tentative front working drawing became Diagram 3.

Even without a detailed design of the palace doorway, it was apparent that the 6' by 4' by 38" high altar unit would be insignificant in comparison to the massive doors and palace levels. Consequently, it seemed advisable to place the altar on some other level(s).

So the next step was consideration of the available platform and step units:

2 platforms 6' X 3' X 26"

2 platforms 8' X 7' X adjustable heights

1 platform 8'9" X 3' X 6½"

2 steps 4' X 1' X 7½"

4 steps 8' X 1' X 7½"

2 step units with triple steps designed especially for use with the first two mentioned platforms

DIAGRAM 1.--Alter design, top view.   Scale 1"=1'.   102
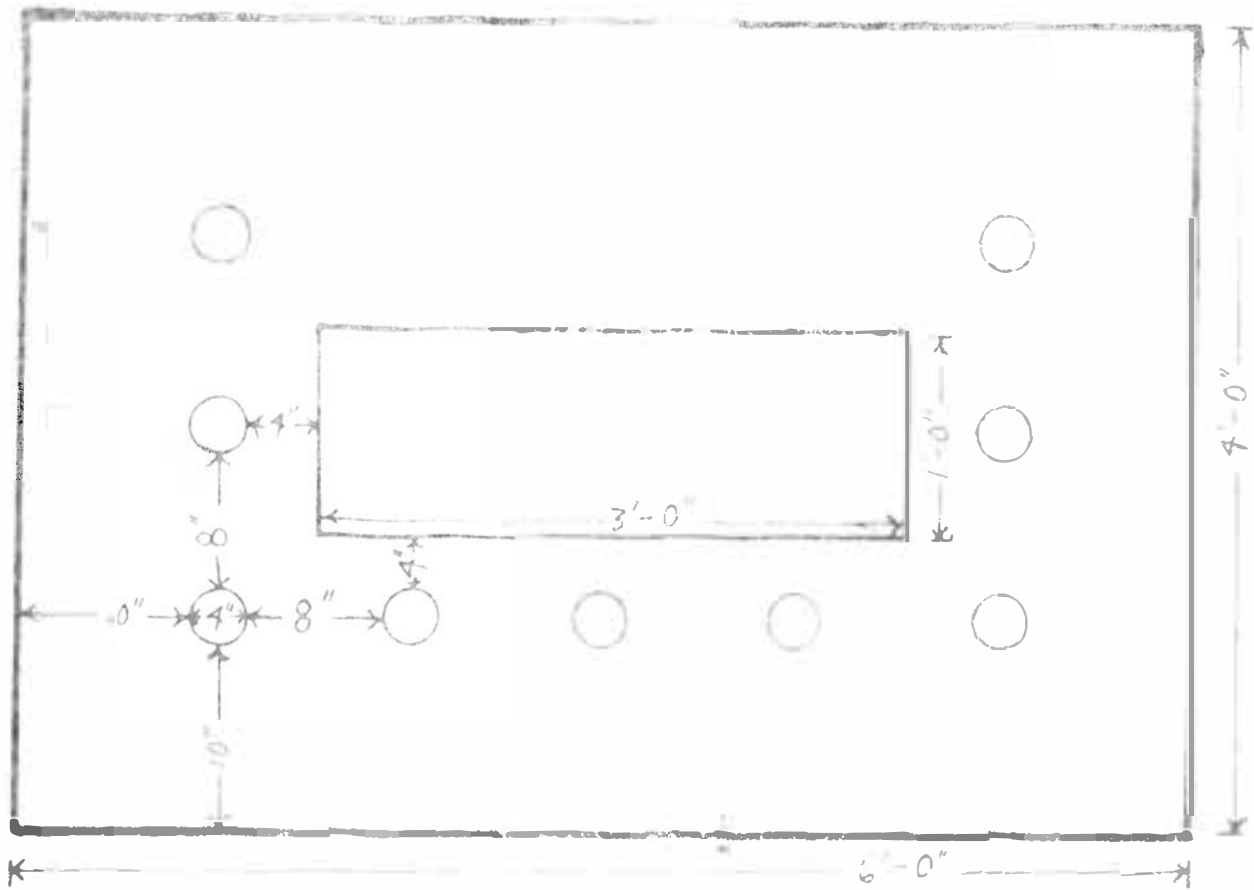
DIAGRAM 1.--Alter design, side view.   Scale 1"=1'.
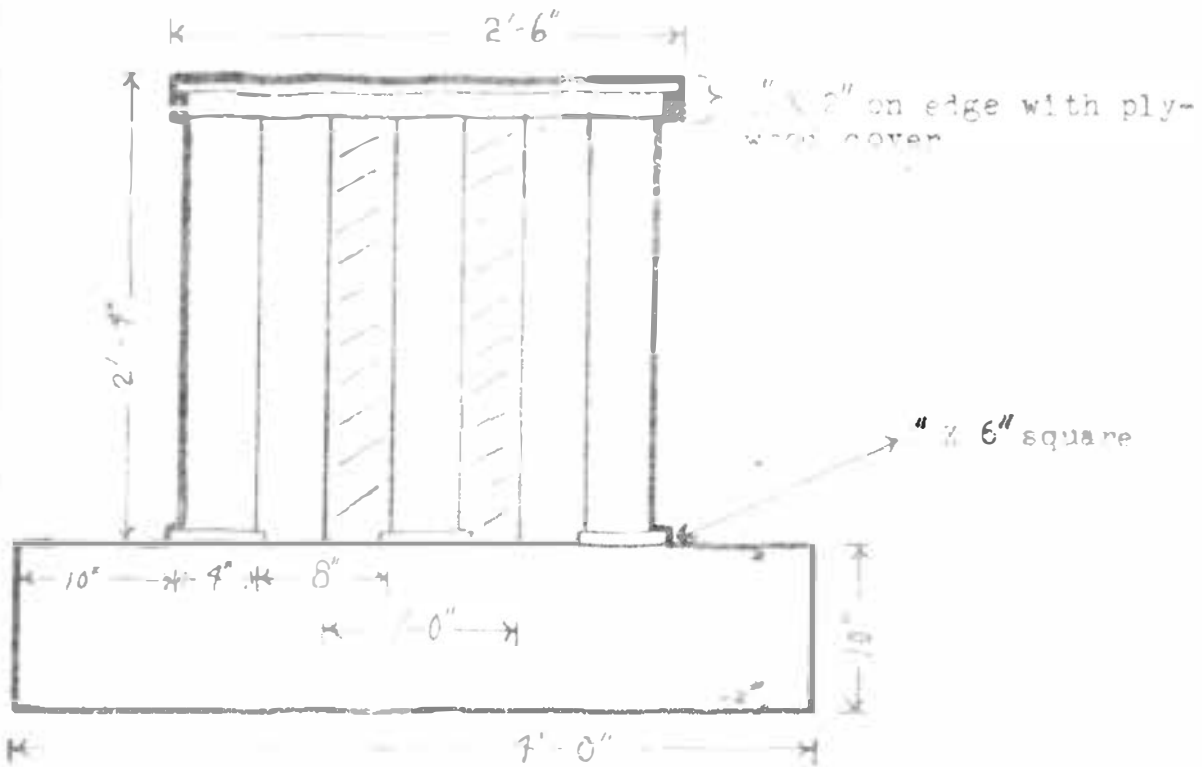
2 platforms (Diagram 4) of skewed structure (4' wide, 7' long on one side and 9' long on the other) with two levels (the larger one 15" high, the smaller one 7½" high)

The two largest platforms (8' X 7') were saved for the palace door unit which would obviously be the larger mass, and the two skewed platforms were tentatively considered for the altar unit. By placing the two skewed platforms with the long sides together, their 15" levels would be appropriately sized to hold the 6' by 4' kneeling base of the altar. (If the kneeling base of the altar had been too large or minutely small in comparison with the second level of the skewed platforms, it would have been possible to redesign its dimensions.)

Next it was important to determine whether the platforms would fit on the stage area within sight lines, so a rough and scale floor plan with the joined 8' X 7' platforms and the joined skewed platforms was sketched. There appeared to be sufficient room. An 8' X 1' X 7½" step level was designed for the back of the joined skewed platforms, and the altar unit became the tentative design of Diagram 5.

As tentatively designed, the altar could be used for the initial offering of the priest, Jocasta's prayer, and the varied chorus movements. A box or bowl for incense, smoke, or fire could be added to the altar top.

Designing the palace door unit.--In designing the palace door unit, important considerations were huge doors, use of columns, and use of many levels.

DIAGRAM 3.--Alter design, front view.   Scale 1"=1'.   104

DIAGRAM 3.--Alter design, front view.   Scale 1"=1'.

4'-6"

} 1" X 2" on edge with plywood cover

2'-4'

1" X 6" square

10" → 4" → 8" →

3'-0"

10"

6'-0"
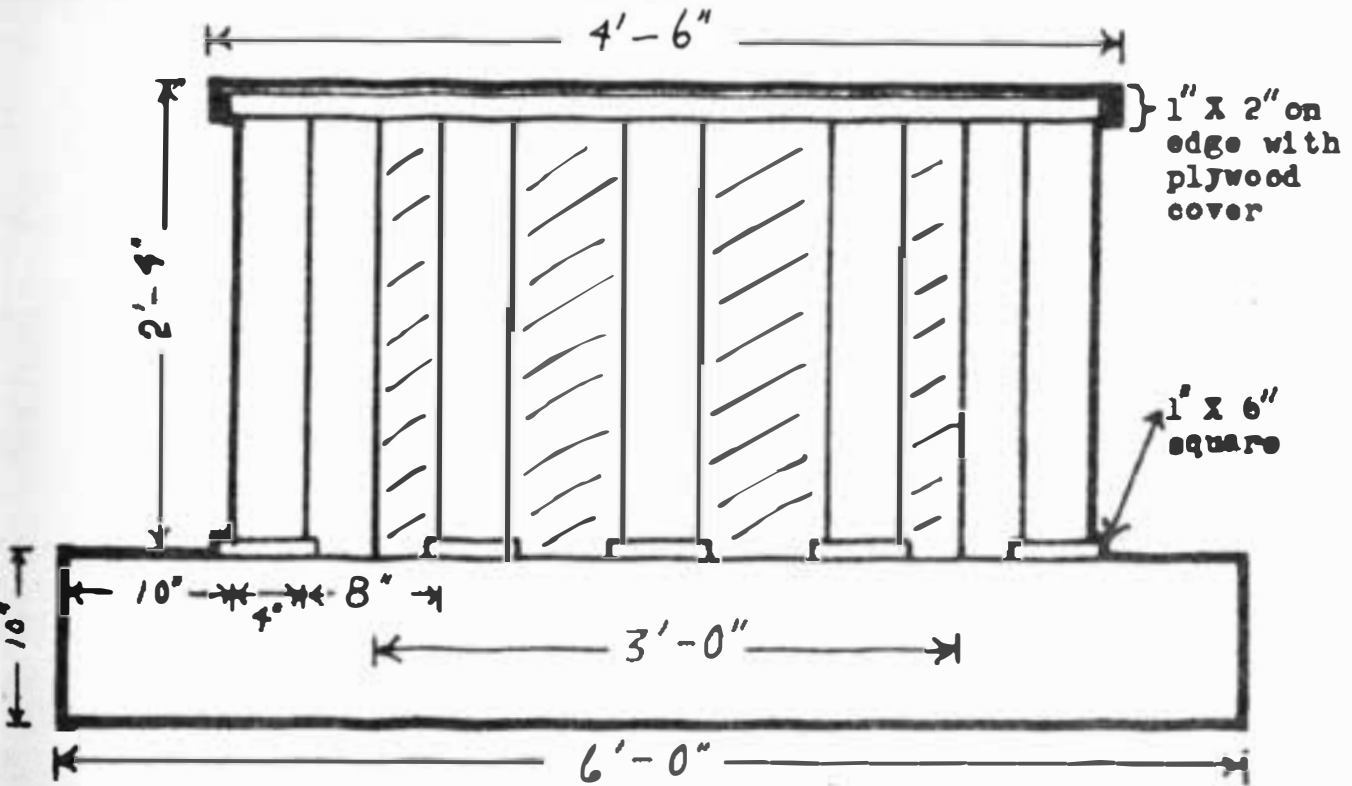
DIAGRAM 4.--Skewed platform design, isometric view.

1'-0"   2'-0"

7'-0"

2√8'
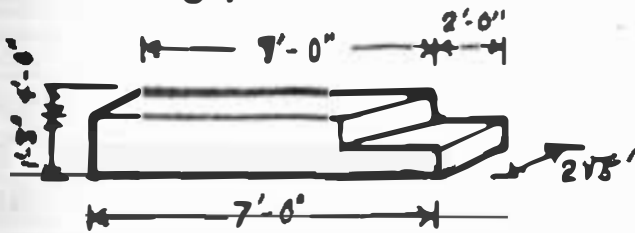
Scale ½"=1'.

(Second skewed platform is the reverse of this.)

DIAGRAM 5.--Alter design, top view, base added.

8'-0"

1'-0"

5'-0"

6'-0"

4'-0"

2'-0"

2√8'

Scale ½"=1'.
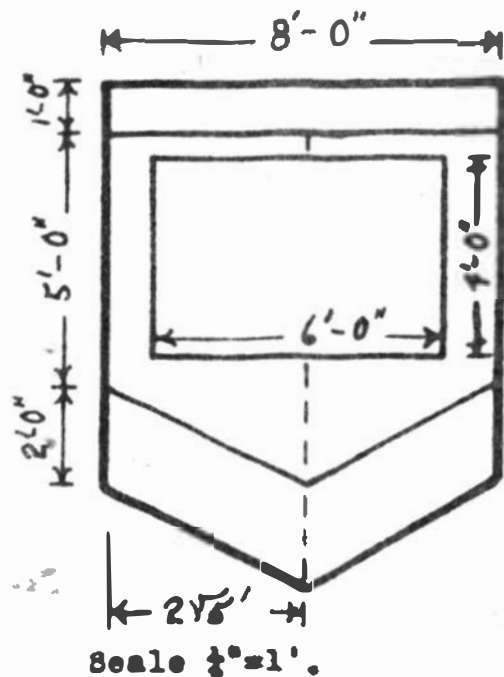
Using double doors would help give size to the door
opening and two 3' wide doors were tentatively planned. With
a 6' width in opening, the golden section would require roughly
a 10' height. Doors of such dimension were sketched to scale,
appeared proportionally pleasing, and became the tentative
door dimensions.

A tentative column diameter of 2½' was chosen by rough
estimate of a column width from a hand spread measurement and
setting a 2½' wide piece of beaverboard on stage and imagining
its effect as a total, tall, three-dimensional column.

Next the available levels were considered. By placing
the two largest levels with their 8' sides together and using
their 15" legs, the four 8' X 1' X 7½" step units (the two 4'
X 1' X 7½" steps could be used for the altar rear) could be
placed around the platform and give two complete levels as in
Diagram 6.

The doors could be opposite the 16' step. Centering the
8'9" X 3' X 6½" platform before the doors would allow for a
column on either side of the platform and an additional level
from the platform itself as in Diagram 7.

At this point the palace unit was developing into a pal-
ace doorway with descending steps and platforms. To strengthen
the subordinated columnar masses, two columns were added to the
other two corners of the second level. Raising the 8'9" X 3'
platform to 15" (two steps above the large platforms) a fourth
step in height would be provided. A 14' step running the full

breadth of the platforms would provide the third step, and bases for the columns near the door could be 7½" higher than the 8'9" platform for a fifth level as in Diagram 8.

The 6' wide door opening would permit 4' of wall from either side of the door opening to the platform edge. The proportionate appearance of such dimensions were checked by scale drawing, Diagram 9, and tentatively used.

Next the two designed set units were placed on a floor plan to determine whether they could be placed on the stage in accordance with the stage depth and sight lines. This was possible.

Approving the design.--A rough paper model of the general mass areas of the designed tentative set was made, and the director was consulted for general approval-disapproval, suggestions, and so on. The general mass areas were acceptable to him; it was suggested (1) to move the palace unit downstage columns farther apart to aid sight lines and (2) to consider stronger balance between the two halves of the stage.

The downstage columns were moved farther apart on a level with the 8' X 7' platforms (15" from the floor), and the two 6' X 3' X 26" platforms and a triple step were added backstage for palace door entrances and exits as in Diagram 10.

Possible additions to the weight on stage left (the palace unit was placed on stage right, the stronger side of the stage, and the altar was placed on stage left) were a large barren tree upstage of the altar and bent toward stage center

DIAGRAM 6.--Palace unit design, top view, first step.

Scale:
¼"=1'.

14'-0"

8'-0"

16'-0"

1'-0"
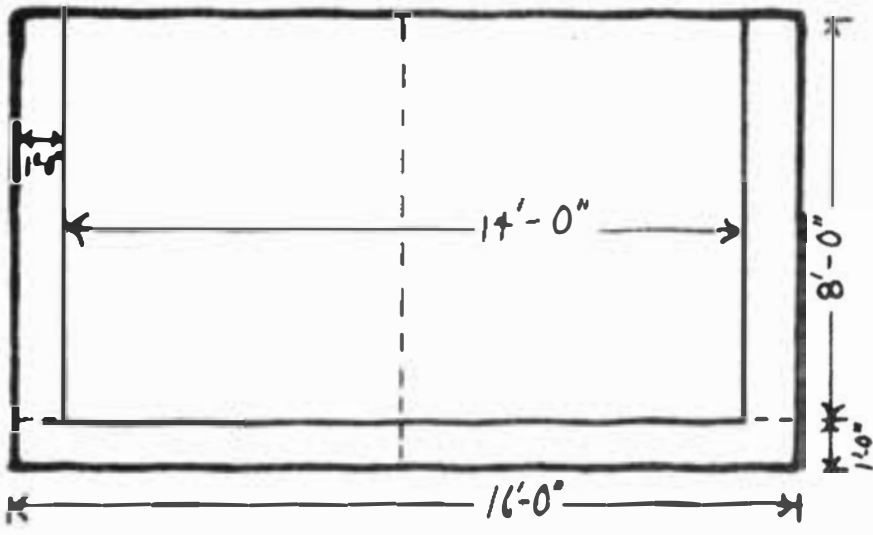
DIAGRAM 7.--Palace unit design, top view, second step.

Scale:
¼"=1'.

2'-7½"

6'-0"

8'-9"

2'-6"

3'-0"
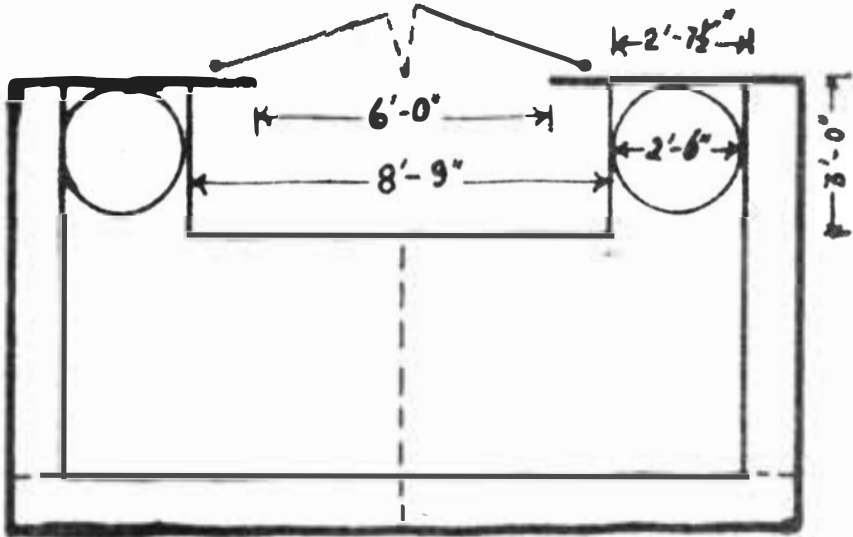
DIAGRAM 8.--Palace unit design, top view, third step.

Scale:
¼"=1'.

3'-0"

1'-0"

7'-0"

1'-0"

DIAGRAM 9.--Palace doors and doorway, front view.   108
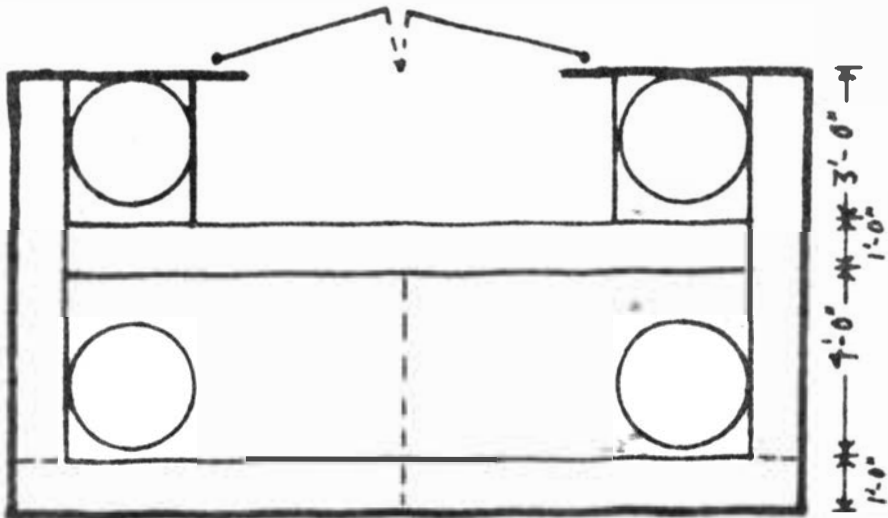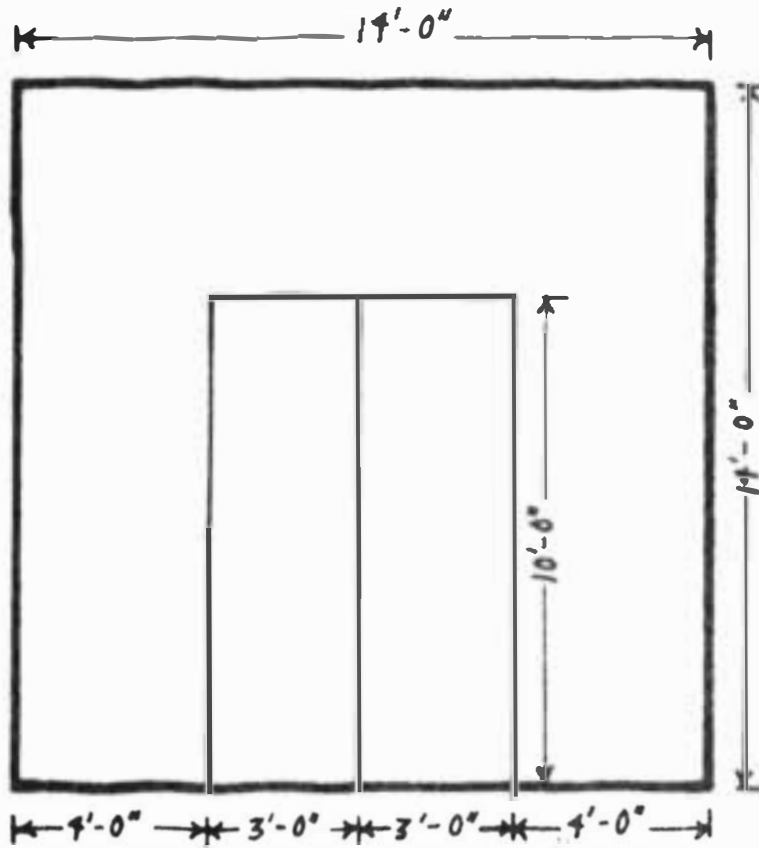
Scale:
½"=1'.

DIAGRAM 10.--Palace unit design, top view, fourth step.
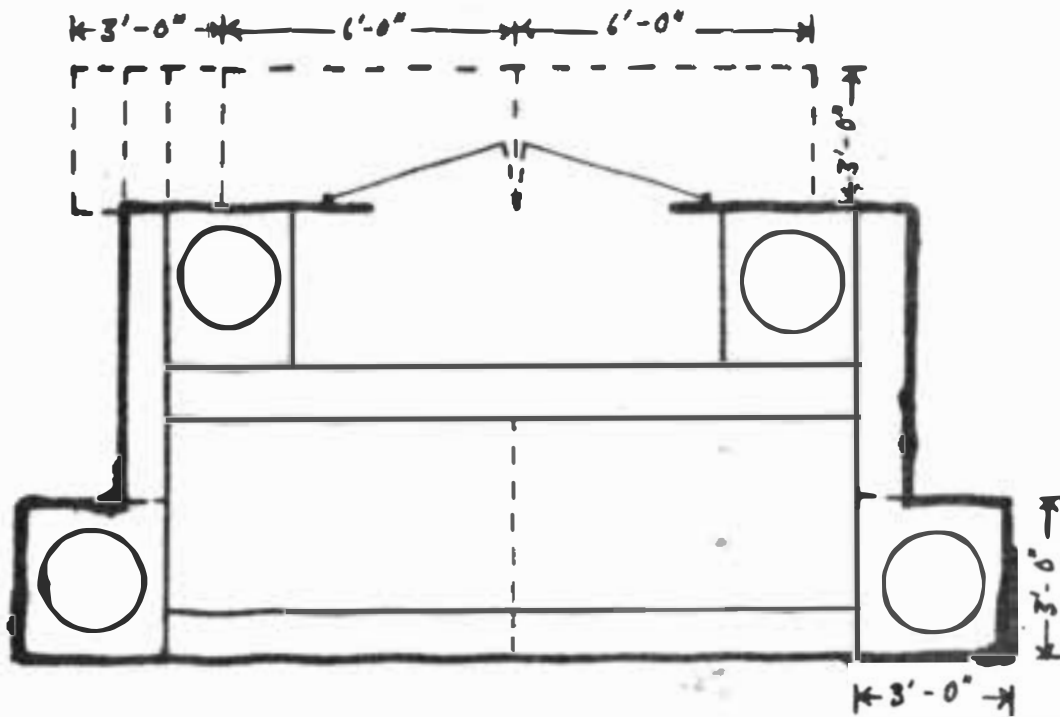
Scale: ½"=1'.

and/or a stylized sky drop with painted triangular accent lines leading toward stage center. In addition, the blocked chorus movements around the altar would add weight to stage left, and the palace unit should be the dominant unit. Both or either using the accented sky backing or tree was acceptable to the director as a balance for the stage. Addition of a ground row was suggested, but eliminated as a detriment to the requirements of simplicity and spaciousness.

Drawing the floor plan and rechecking the sight lines.-- The floor plan was drawn and sight lines were rechecked. Diagram 11 shows that the palace door and altar were sufficiently visible to all of the house and the wings are completely concealed. The sight lines from the balcony would include two feet above the door opening. Concealing column tops, door flat top, and lighting instruments from the main floor audience could be accomplished by hanging of several teasers.

Prior to blocking rehearsals, copies of the floor plan were run off on the ditto machine and distributed to the director and cast and floor plans were painted on the two rehearsal room floors.

Constructing the model.--The set masses were constructed to scale from balsa wood. When the model pieces were ready for assembling, the director was again consulted. Two-tiered bases for the columns were suggested; the close measurements of the columns at the sides of the door made it necessary to reduce the columns to two feet in diameter to accommodate two-tiered

DIAGRAM 11

SIGHT LINES OF FLOOR PLAN

Piano

18'-0"

29'-0"

Scale: 1cm=5'.

70'-0"
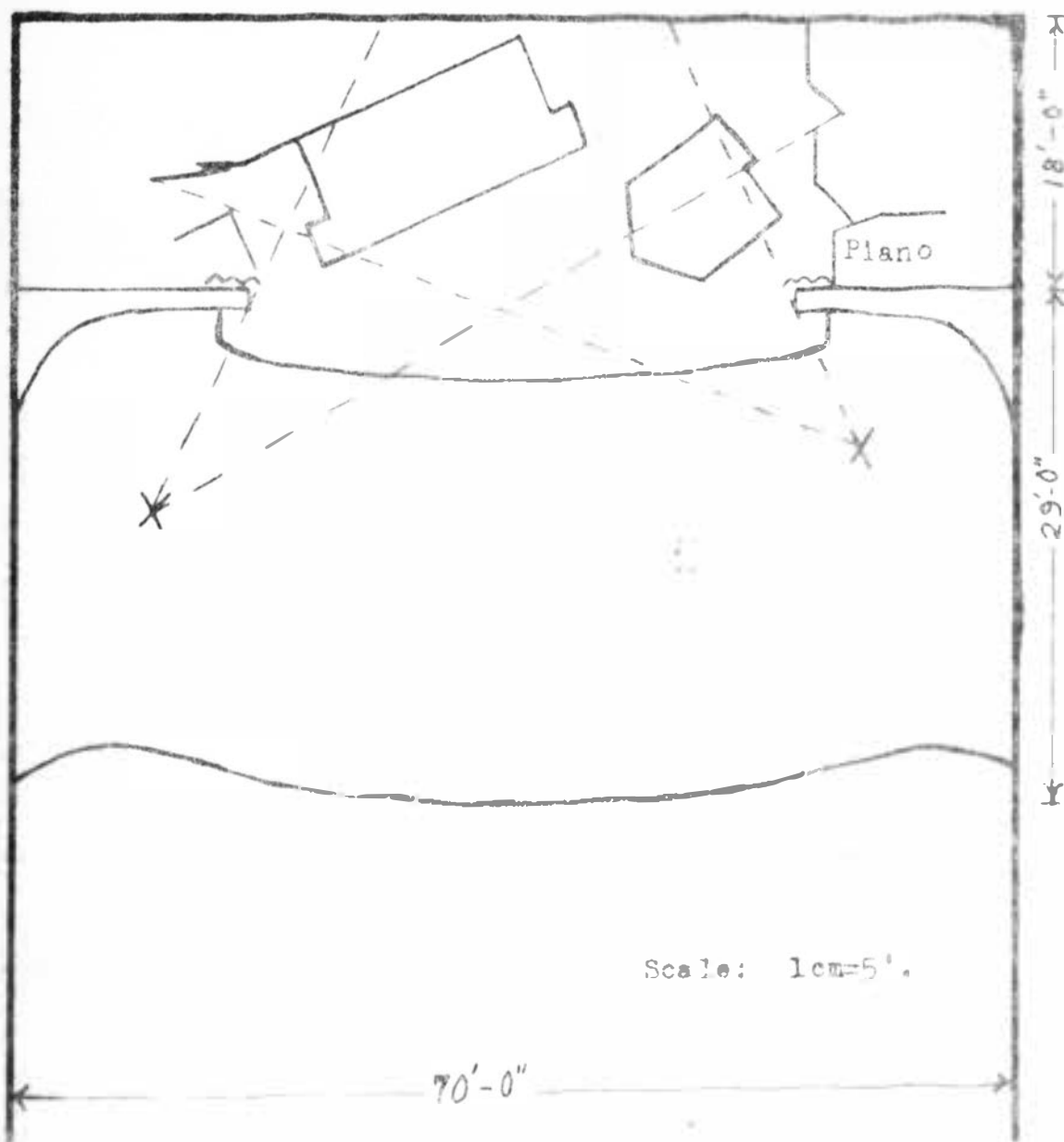
X's are extreme sight line determination seats.

bases. This adjustment was made. A 14' height with the 2' diameter columns would then make them directly proportional to the altar columns.

Use of a large plastic sheet for the sky drop was considered because of the possible runny effect in sky lines that could be achieved in painting it. If used and flown from the farthest upstage counterweight ($1\frac{1}{2}$' from the rear wall), it would be necessary to wire the counterweight batten farther upstage to provide more acting area.

The model columns were altered, the model was assembled, and the tentative set design was complete.

Designing the Painting.--As has been explained,[44] the colors--blue-green, blue, blue-red (purple), and red-orange-- were designed in accordance with the costumes and accepted by the director.

It was decided to use an unohtrusive marbled effect[45] as a painting technique. The appearance of marble would help convey the effect of large, weighty mass; smooth simplicity; and a Grecian nature.[46]

A basic application of grayed (unsaturated) blue-green, blue, blue-red, and red-orange each marbled with a more saturated same hue would keep the suggestion of marbling without calling undue attention to the marbled effect.

---

[44]Above, p. 92.   [45]Above, p. 92.

[46]Above, p. 91-92.

The distribution of colors on the set pieces was done impressionistically-stylistically.

Recording the design

The set is graphically recorded with a floor plan, Diagram 12; a model, Plate I; and working drawings, Diagrams 1 to 11 and 14 to 17. More detailed working drawings were not necessary, for all construction was under the direct supervision of the set designer-technical director.

The painting for the set is graphically recorded in Tables 5 and 6 and Diagram 13. Table 5 gives the formulae for making the sketch colors and mixing the painting colors. Table 6 gives examples of the production colors for the basic chorus women's costumes, set sketches, and set base and marbling paints. Diagram 13 shows the color distribution on the set.

Executing the set design

Construction and assembling requirements

Palace door unit requirements.--The palace unit required the following construction and assembling:

1. Build four columns--two 13' high and two 15' high. Each column was constructed with four round 5/8" plywood discs as bases and central braces. Ten knotches were then cut in each disc edge at a depth of nearly one inch. The knotches were cut so that 1"X 2"s were pounded snugly into them. The

PLATE I

SET MODEL
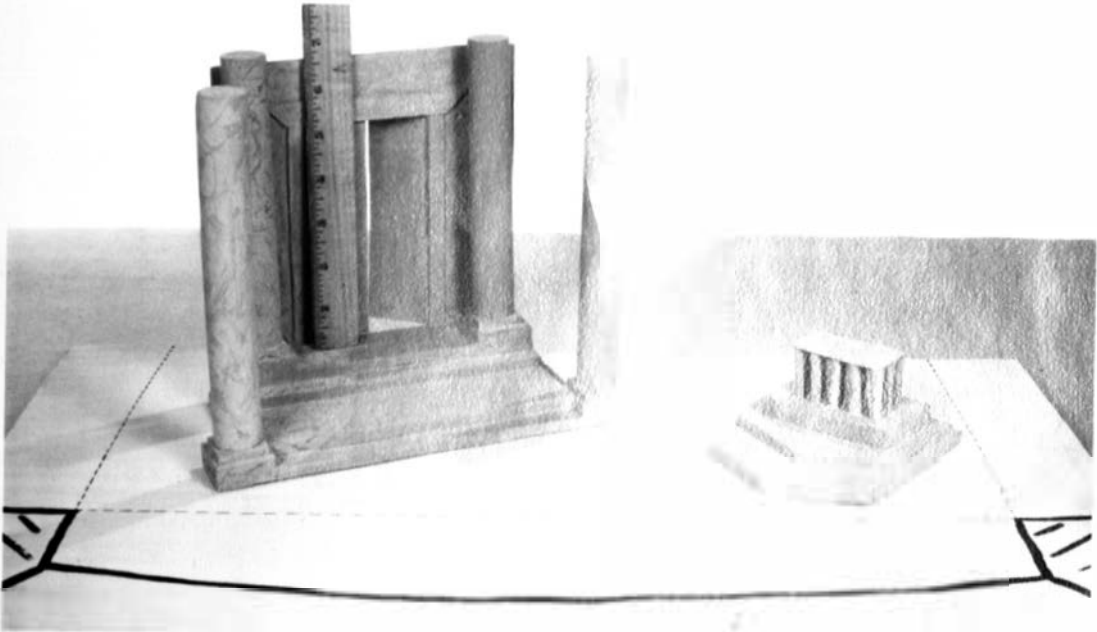
PLATE II

SET
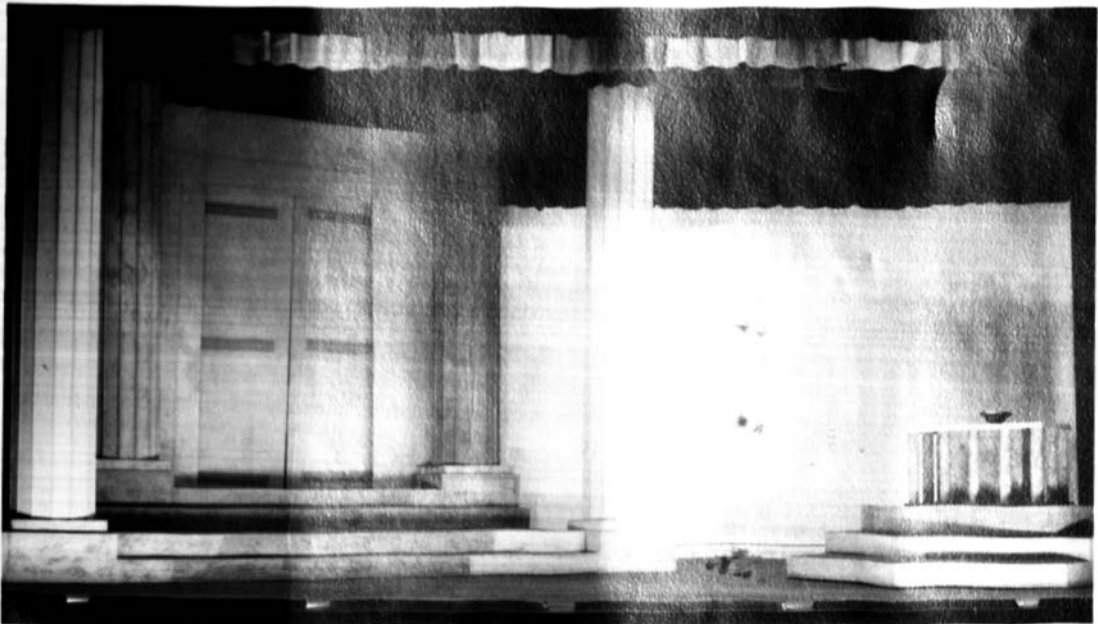
TABLE 5

SET COLORS FORMULAE[a]

Color	Sketch[b]	Paint[c]	
		Part	Pigment
Marbling BG	Light Blue Green	1 6 2 8	Ivory Drop Black Whiting Emerald Green Italian Blue
Marbling B	Blue Gray	1 8 4	Ivory Drop Black Whiting Am. Ultramarine Blue
Marbling BR	Mauve	6 3 6 2	Whiting Solferino Lake English Venetian Red Am. Ultramarine Blue
Marbling RO	Vermillion Orange	2 1 1	Whiting English Vermillion French Orange Mineral
Gray		1 8	Ivory Drop Black Whiting
Base BG		9 2	Gray Marbling BG
Base B		6 1	Gray Marbling B
Base BR		9 2	Gray Marbling BR
Base RO		2 1	Gray Marbling RO
Sky B		1 10	Marbling B Whiting

[a]Burnt Turkey Umber was used additionally for marbling the doors.

[b]Venus Coloring Pencils, American Lead Pencil Co.

[c]Gothic Color Co., Inc., New York City

TABLE 6

PRODUCTION COLORS SAMPLES

BG B   BR RO

COSTUME COLORS

BG B   BR RO

SKETCH COLORS

BG B   BR RO

MARBLING COLORS

BG B   BR RO

BASE COLORS
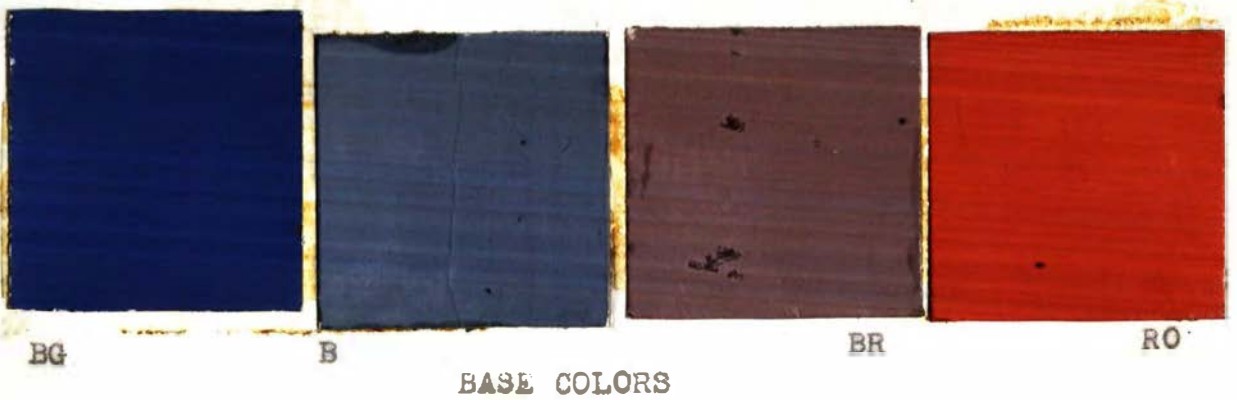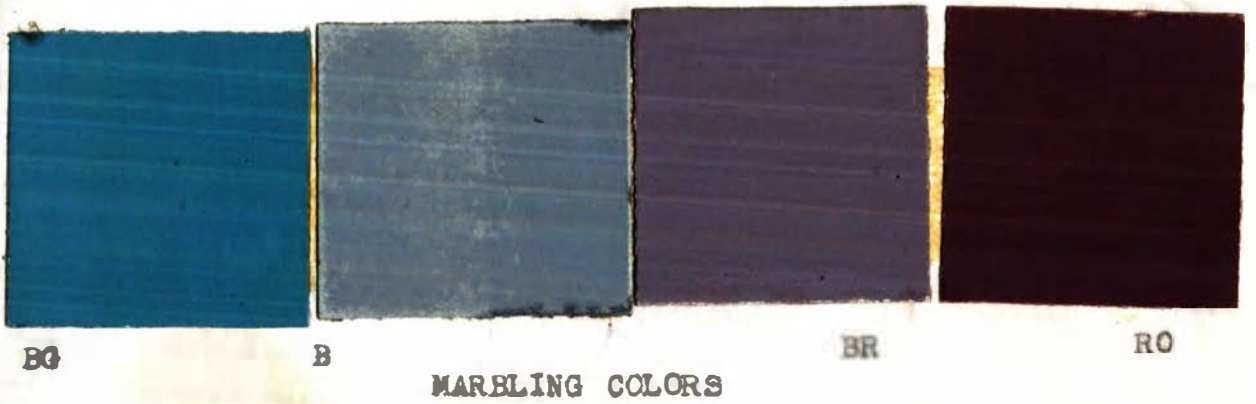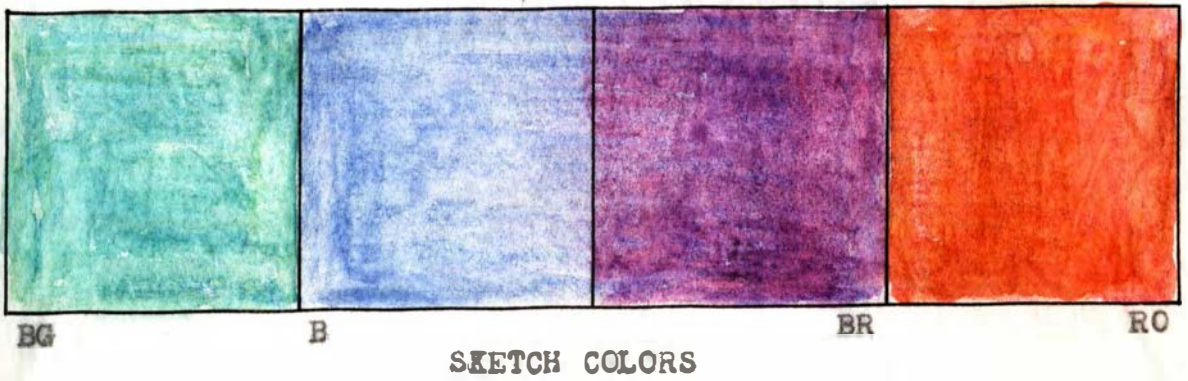
DIAGRAM 13   117

SET PAINTING
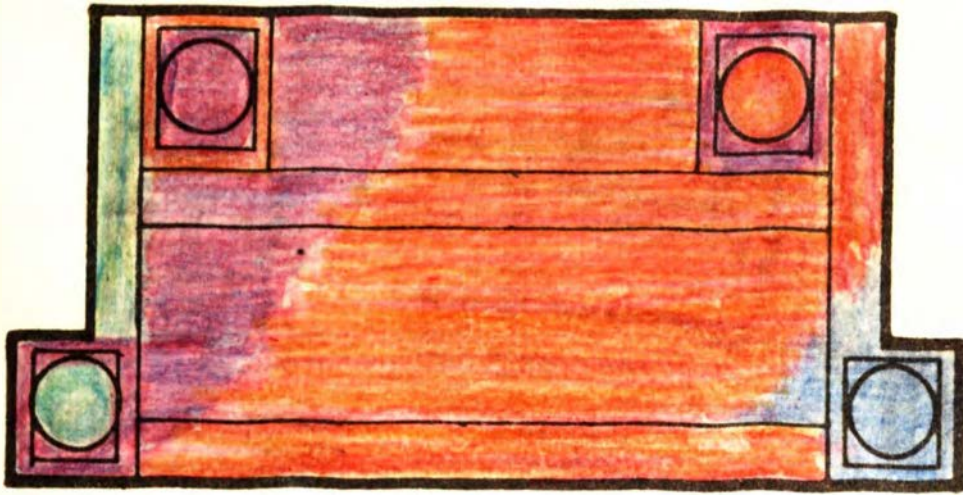
PALACE TOP
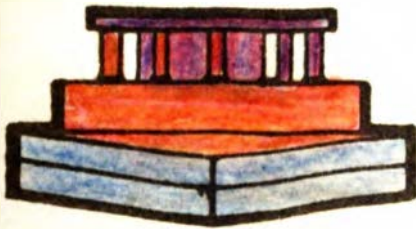
ALTAR FRONT

ALTAR SR

ALTAR TOP

ALTAR SL

Scale: ¼"=1'.

DIAGRAM 13--Continued 118
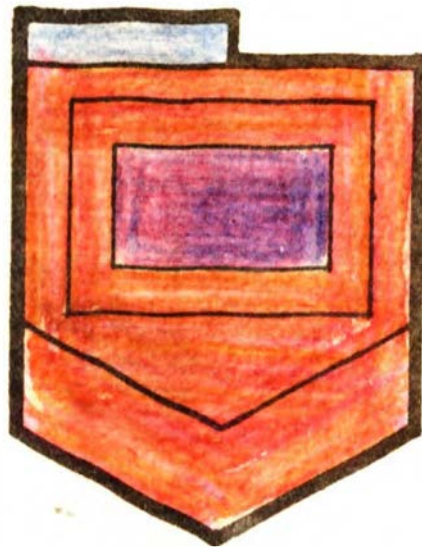
PALACE FRONT

PALACE 8R
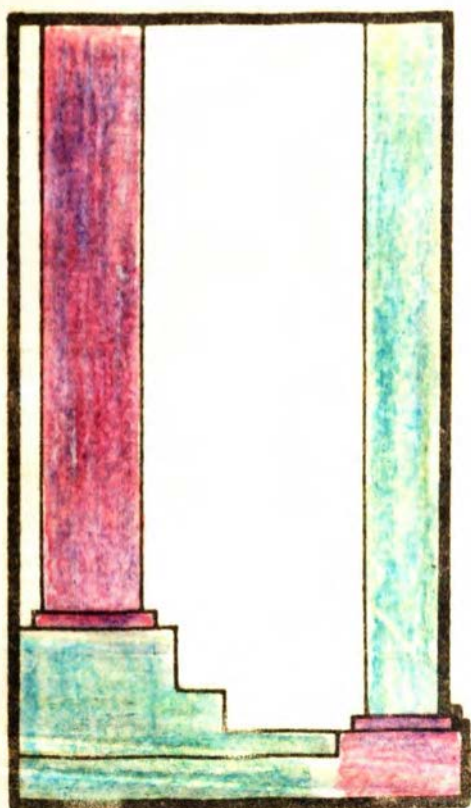
PALACE SL
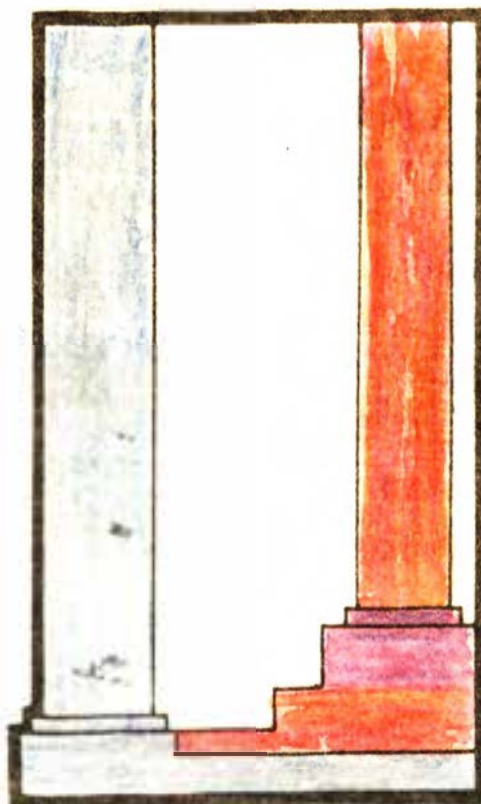
ten 13' or 15' 1"X 2's were leveled and screwed securely to the plywood discs. The columns were next covered with light muslin whioh was stretched very tightly and stapled and glued to each 1"X 2"piece. Part of one column was painted with size water to determine whether the fluting was sufficient. Although the fluting was apparent, it was made more obvious by ripping 2" lath into three strips and tacking strips outside the muslin on each of the 1"X 2's. See the working drawing of Diagram 14. The finished product gave a strong appearance of fluting as can be seen in any of the plates from Plate II to Plate XVII.

2. Build two doors. The potential unwieldiness of doors 3' X 10' was a strong concern in construction of the doors. If they had been attached to the flats beside them, the flats would have had to be strongly and firmly held. The flats, however, did not rest on the floor, had little room for bracing, and even with strong bracing would be easily moved by opening and closing such large and heavy doors. Consequently it was determined to make the doors as light as possible and to attach them to supports other than the flats. The doors could be made relatively light by constructing canvas flats, beaverboard flats, or unbraced plywood sheets. Plywood sheets were chosen for their extra durability and better integration with the plans for the attachment of the doors.

If the doors were extended behind and beyond the edge of the door opening, they would help create the illusion of thick

walls and could be bolted to metal straps; which could move around the pipes of two available lighting stands; see Diagrams 15 and 16. Because the lighting stands were not sufficiently tall to rest on the floor and support the doors, they would have to be attached to the backstage platforms. Welding large metal bases onto the lighting stand bottoms would provide a means for bolting the stands to the backstage platforms; see Diagram 17.

3. Attach the door posts to the backstage platforms.

4. Build a small flat for above the door.

5. Assemble the door frame from the above flat and two 14' X 4' flats in stock.

6. Check the 8' X 7' platforms for loose nails or boards, bolt on legs, join them, and skirt them with beaverboard.

7. Attach the door flats to the 8' X 7' platforms.

8. Check the 8' steps and join them to one another and the 8' X 7' platforms.

9. Put legs and a skirt on the 8'9" X 3' platform and join it to the 8' X 7' platforms.

10. Build the 14' step and join it to the palace platforms.

11. Build four false, tiered column bases of beaverboard.

12. Dutchman any large seams with muslin.

Altar unit requirements.--The altar unit would require the following construction and assembling:

DIAGRAM 14.--Bottom board design, top view. Scale: 1"=1'.

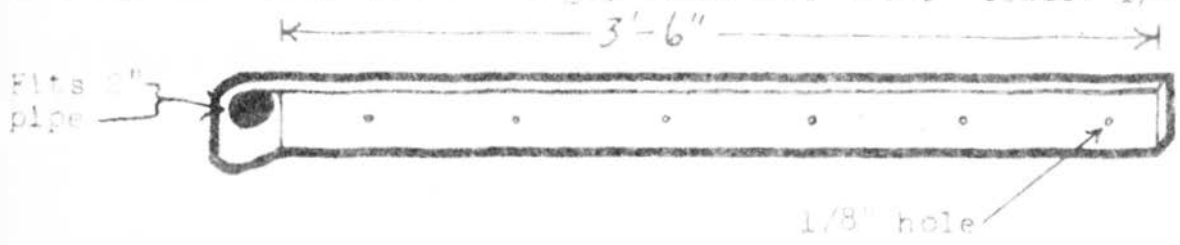1"x2"

Shaft

Nailer

Muslin
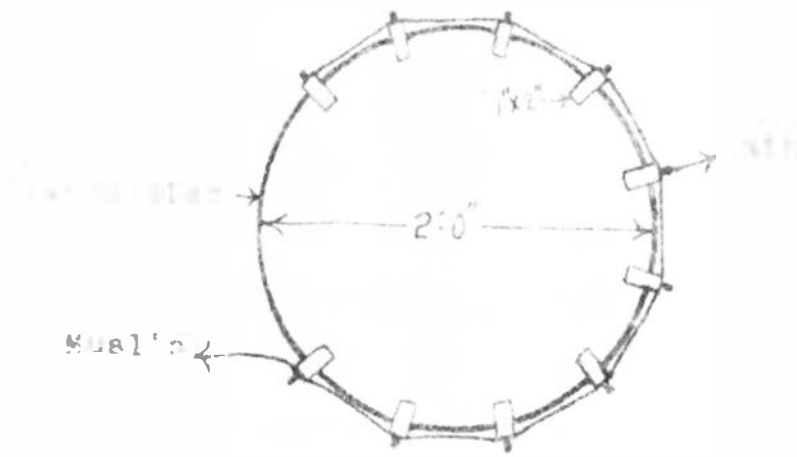
DIAGRAM 15.--Door hinge design, isometric view. Scale: 1/8"=1".

3'-6"

Fits 1"
pipe

1/8" hole

DIAGRAM 16.--Door mounting system.
Front view.
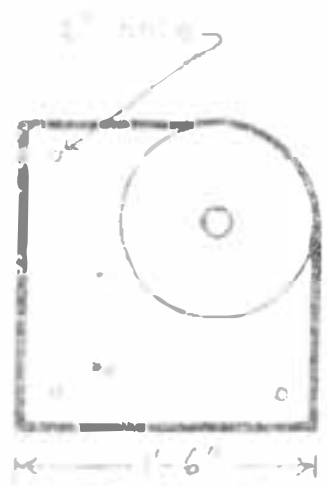Scale: 3"=1'.

4'-0"

3'-0"

(Held in frame)
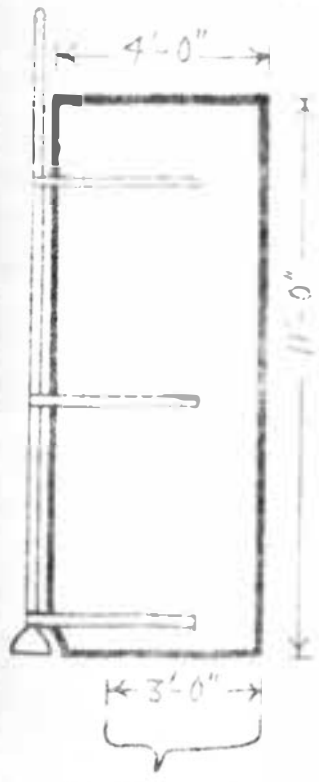
DIAGRAM 17.--Door stand design.
Top view. Scale: 1"=1'.

1" hole

1'-6"

1. Cut nine columns from newepaper tubing.

2. Cut nine square column bases from 1" X 6" lumber.

3. Put the column bases on the columns.

4. Make an altar top of three-ply plywood with a 1" X 2" edging.

5. Attach the altar top to the columns.

6. Make the rectangular 1' X 3' X 28" backing for the columns from beaverboard and a 1" X 2" frame. (It would support no weight and be merely for appearance.)

7. Make the kneeling altar base platform (6' X 4' X 10"). Before construction of this unit began, a platform longer and lower was found in a dump area. It was sawed to a 6' length and legs and a beaverboard skirt were added.

8. Check the skewed platforms for loose nails and boards, attach them together, and skirt them with beaverboard.

9. The two 4' step units would have to be attached together and to the skewed platforms. Before actual assembly, rehearsal revealed that only the priest mounted the altar unit from the rear, and, therefore, only one 4' step unit was needed.

10. Attach the altar piece to the kneeling base and the kneeling base to the skewed platforms.

11. Dutchman any large seams with muslin.

Sky drop and tree requirements.--To prepare the sky drop, put battens both at the top and the bottom of the plastic sheet. Secure a dead tree and put foot irons on it

for screwing it to the stage floor by means of stage screws.

Purchasing requirements.--The construction would require the purchase of the following materials:

1. bolts, nuts, and washers for bolting legs on the 8' X 7', altar kneeling, and 8'9" X 3' platforms

2. beaverboard for the rectangular solid behind the altar columns and for the skirts on the platforms and steps

3. three-ply plywood for the altar top and palace doors

4. five-ply (5/8") plywood for the column discs

5. 1" X 2" lumber for the columns

6. long screws for column assembly

7. light muslin to cover the columns

8. new jig saw blades to cut the column discs

9. and have welded stands and hinges for the door assembly

10. lath strips for the column and a plastic drop were purchased

Other equipment was already available in the shop.

Work schedule requirements.--Most of the technical work on the State College plays is done by the classes in theatre production, but additional help usually comes from the local cast of the Alpha Psi Omega national honorary dramatics fraternity. The Alpha Psi Omega members were especially helpful

on the construction and mounting of the _Oedipus Rex_ set. The
limited number of students in the production classes and the
close production dates of _Oklahoma!_ and _Oedipus Rex_ made it
necessary to ask Alpha Psi Omega members to assume half of
the work of constructing, which they agreed to do.

A schedule of construction times and persons to do each
piece of construction was set up, dittoed, posted, and dis-
tributed to all workers.

Mounting the show

Setting stage.--Prior to setting stage, the available
platforms, steps, and flats had been brought from the storage
garage to the stage and scene shop, the altar unit including
the kneeling base was assembled, the four columns were built,
the doors were completed, and legs were put on the 8' X 7'
platforms.

On Friday, May 9, work began on assembling the set
units on stage. The columns, doors, and altar were carried
on stage from the scene shop. (The heavier platforms had been
stored on stage behind the Beauty Pageant backdrop until May 9.)
The entire altar unit was assembled. The palace 8' X 7' plat-
forms were joined and permanently set on the stage floor. The
8' X 1' steps were attached to one another and the 8' X 7'
platforms. Fifteen inch legs were bolted on the 8'9" X 3'
platform. And one door was set in its approximate position.

On Saturday, May 10, the false, tiered column bases
were cut from beaverboard, the flats were secured to the pal-
ace unit, the 8'9" X 3' platform was attached and skirted, the
14' X 1' step was built and attached to the palace unit, the
two upstage columns were secured, and their false bases added.
(The two downstage columns could not have been properly con-
cealed during the May 14 performances if they had been assem-
bled.) One door was bolted in place. (The backstage platform
to hold the other door was being used for the May 14 one-act
play performance.) The altar unit was skirted with beaver-
board, completely dutchmanned for painting, and stored as a
unit in the stage left wing. The Women's Day one-act and
Pasquette set pieces were taken from the stage left wing; the
stage was set for the May 11 student music recital, May 12
Community Concert, and May 14 one-act and Paaquette perfor-
mances. Small portions of paint pigments were mixed to match
the four costume colors and were used for the set modeling
colors. The four modeling colors were each mixed with sev-
eral parts of gray for the four base colors. The paints were
applied to the set model and approved by the director.

The stage was not again available until Thursday, May
15. On that day, classes and evening rehearsal on stage per-
mitted only limited work on the set--the two upstage column
bases were dutchmanned and one of the flats which had been a
bright red was covered with whiting-size water.

On Friday, May 16, the downstage columns were set, the second door was set, one downstage column false base was completed, and the palace levels were dutchmanned. During the evening rehearsal on stage some of the lights were set.[47]

Saturday, May 17, was devoted to hanging the lights, hanging teasers to conceal the lights and set top, setting the wings and backing for the palace doors, mixing the paint, and painting the set.

Painting the set.--The base coat of the unsaturated set colors was applied with brushes. After the base coat was dry, marbling with the more saturated set colors was executed with a large feather duster.

After the set was up and painted, lights were tried both to determine whether the sky space would need additional lighting and to try various readings for the entire set.

The general appearance of the set with the unbroken surface of the stage rear wall was a balanced one; the negative mass of sky helped balance the palace door mass. Consequently, although the plastic drop had been purchased and was laid out for painting, the rear wall was used for the sky and no tree was added. The sky was flat-painted a higher value of the modeling blue and left untextured, for the wall itself is a stucco texture. The rear wall was painted up to the level of the movie screen; there was a possibility that the screen would be removed enabling the wall to be painted

[47]Following, p. 226.

several feet higher (beyond the sight line of the main floor front row) in an effort to increase the vertical space.

Set rehearsal.--On Sunday, May 18, the set rehearsal, handles were put on the backs of the doors, the rate and way to pull the act curtain was set, the down right and up left wing flats were given additional bracing, and the jobs to be done before Monday were assigned--purchase batteries for the prompter's flashlight, paint sight lines in the wing areas, scrub the floor (no ground cloth was used), and either set a teaser to cover the movie screen and unpainted part of the rear wall (if the movie screen were not removed) or paint higher up on the rear wall (if the screen were removed).

Other technical rehearsals.--On Monday, May 19, the props, lights, and sound (other than the tympani beats) were added. The lighting affected most strongly the doorway by deemphasizing it. The director wanted a prominent doorway for the royal entrances; consequently, false thickness was added to the doors and posts and lintel were painted around the doorway.

The entering royalty was cautioned about trampling on the backstage platforms prior to entrance and about opening the door sufficiently widely to reveal the size of the opening.

A teaser had been set to cover the movie screen which would not be removed.

On Tuesday, May 20, costumes and makeup were added. The cast had to be cautioned to remain behind sight lines in

the wings, not to bump the act curtain, and not to trample the backstage platforms. A chet member was assigned the job of properly opening and closing the door for all entrances. Still more emphasis was wanted for the doors; consequently, during the next day, the hinges were emphasized by changing their color and darkening their outline, and the doors were marbled with burnt turkey umber. During Wednesday, trucks for the set strike on Friday were ordered from maintenance.

Dress rehearsal.--Wednesday, May 21, was dress rehearsal. A faster final curtain was necessary and posting the strike list was set for the next day.

Performances.--On Thursday, May 22, the day of the first performance, the set had to be readjusted after movement by the Memorial Day Assembly crew.

On Friday, May 23, the trucks were gotten for striking the set, and the show was struck immediately after the final curtain.

CHAPTER V

DESIGNING AND EXECUTING THE COSTUMING

TABLE OF CONTENTS FOR CHAPTER V

BODY FOR CHAPTER V, DESIGNING

General Considerations in Costuming

Two purposes of costuming-- general and specific

General purpose

Definition.--The fundamental purpose of the costumes-- indeed of all the technical areas of the production--is to enhance in the best possible way the expression of the play.[1]

Achievement.--The style and mood of the play's expression are determined by the director and must be adhered to for maximum productional effectiveness. Close coordination among all technical areas is also essential for maximum technical effectiveness.[2]

Specific purpose

Definition.--Costumes share with makeup the added function--as an intimate part of the actor who wears them--of helping each actor in his portrayal of character.[3] Proper costume designing takes into account the actor himself as well as the role he is acting.

---

[1]Bowman, p. 155. Gassner, pp. 118, 320. Heffner, p. 428.

[2]Dolman, pp. 375-76. Gassner, pp. 118, 392. Heffner, pp. 419, 427-28.

[3]Gassner, pp. 119, 393, 395. Heffner, p. 419.

Achievement.--The actor will give to a role a specific
interpretation integrally a part of himself in bodily outline,
bodily movement, and unique personality. It is frequently
necessary to conceal or modify by costumes some bodily features
not in keeping with the role (apparent weight, stature, pos-
ture, and so forth), but it is equally important to emphasize
the actor's bodily features and movement which give strength
and emphasis to his characterization. Likewise, the unique
features of the actor's personality that are assets to the
characterization should be emphasized. In fact, if a costume
is constructed so as to reflect the characterization, the
characterization is likely to improve, for the actor will be
less conscious of himself as a person and more conscious of
his characterization.[4]

Costumes are perhaps even more important for the actor
in helping the audience and other actors identify and focus
proper attention on him as a given character.[5] For examples,
in a role demanding individual recognition by the audience
(chorus roles in musicals frequently lack this requirement),
differentiation is readily achieved by costumes. For a role
in which the actor enters few times for short scenes, it is
often wise to refrain from a costume change for him so that
his identity is more certain to remain clear for the audience.

---

[4]Gassner, p. 401.

[5]Gassner, pp. 118, 392. Heffner, pp. 419-20.

Costumes can not only help the audience pick out a given character but also reveal to them what kind of person he is with as muoh explicitness as the script demands.[6] Character revelation oan be accomplished in several ways: Coetumes can help denote time and place (complete realiam and historical accuracy is eeldom necessary, but accurate and careful study of the dress of historical perioda--especially of silhouette lines--is essential for the costume designer). Costumes can also help denote age, economic status, social status, race, vocation, tastes, and emotional statee.

The more clearly each costume fulfills its epecific purpose, the more clear, credible, and enjoyable the characterization will be for the audience, other actors, and the actor himself.

Three variables of costuming

The costumes can be varied to fulfill their general and speoific purpoees by varying the three properties of costume design that can be controlled--line, fabric, and color.[7]

Line in costuming

To achieve variety--highlights and lowlights--in costume appearance, the lines must select broad basic factors and eliminate minute detail; stage distance (except in the caee of intimately close audiences) and stage lighting fuse

---

[6]Dolman, p. 375. Gasaner, pp. 118, 392, 404. Heffner, pp. 419-20, 428-29.   [7]Gasaner, p. 399.

detail into an unbroken surface. Costume lines should be sim-
ple, unnaturally pronounced, lacking in detail, and broad and
basic in effect;[8] they may have outside, internal, applied,
and/or symbolic use in costuming design.

Outside line.--The most important lines of a costume
are the outside lines which give it its shape, or silhouette.[9]
Accurate study of the clothing of the various cultures and
periods of history is essential[10] (in helping the costumer
select the correct silhouette lines and eliminate the unneces-
sary other lines) if the costumes are to be some type of modi-
fied realism. (As has been stated before, few costumes should
ever be completely realistic; selection of significant lines
and elimination of others is generally necessary to project
costumes through stage lighting and distance to an audience.)
Costumes can, of course, be completely fanciful. But, even in
designing fanciful costumes, a knowledge of various silhouette
lines and the effect they produce can be a great asset in
achieving a desired fanciful silhouette.

---

[8]Dolman, p. 298. Gassner, pp. 118-19, 399-400.
Heffner, pp. 429, 447.

[9]Helena Chalmers, p. 14. Gassner, pp. 395, 399-400.
Agnes Brooks Young, Stage Costuming (New York: The Macmillan
Company, 1933), pp. 13-14.

[10]Dolman, pp. 375-76. Gassner, pp. 118, 391, 395.
Heffner, p. 432. Young, p. 13.

Internal lines.--Internal lines--those within the costume--are made by the cut and drape of the garment. They are the folds, pleats, and diagonals that give three-dimensionalism and symbolic significance to a costume.

Applied lines.[11]--Line can be applied to materials either by the addition of a decoration of buttons, braid, embroidery, accessories, and so on or by a surface pattern of checks, stripes, and so on. Great caution must be exercised in applying line so that it is sufficiently broad, limited, and simple for the desired stage effect. For examples: A pattern of narrow red and blue stripes appears to be an unbroken purple surface to the audience; braid and trim not of a loose open pattern appear solid; all minute details are fused.

Symbolic lines.[12]--Man frequently associates one part from an object in nature with the entire object, and the part comes to symbolize the object. Line symbolism is just one type of symbolism that the costumer can use. Verticle columnlike lines suggest dignity, strength, majesty. Horizontal lines suggest repose, stability, serenity. Diagonal lines suggest distortion, power, force, that which is dramatic or dynamic. That a line is curved, jagged, extended, short, heavy, or light may also tend to emphasize a mood.

---

[11]Gassner, 400.

[12]Friederich, pp. 90-93. Gassner, pp. 400-401. Above, pp. 68-69.

Fabric in costuming

The fabric used in costuming can also reflect the production's style and mood and help reveal characters. A fabric's variables are its specific drape, weave, and texture.[13]

Drape of fabrics.--A fabric may be light and soft so that it floats diagonally from the body; it may be heavy and soft so that it hangs in long verticle folds or clings to the body; it may be light or heavy and stiff so that it holds rather rigid form. Table 7 is a listing of several fabrics for each of the four possible types of drape.[14]

TABLE 7

FABRIC DRAPE

	Stiff	Soft
Light	organdy, taffeta, tarletan, tulle, net, cellophane	voile, chiffon, gauze, cheesecloth, crepe de Chine, lawn, georgette
Heavy	brocades, show satin, upholstery fabrics, weighted muslin, canvas, sail cloth, some metal cloths	velvet, jersey, monk's cloth, duvetyn, flannel terry cloth, ratine, weighted silk, some cottons and muslins

Generally speaking one can get expensive and inexpensive fabrics of any given drape, and, for costuming, many of

---

[13]Dolman, p. 375. Gassner, pp. 391, 760. Heffner, pp. 434-35.

[14]Gassner, p. 760.

the cheaper fabrics can be made to appear like the expensive ones from the stage. Because the cut of the costume or addition of sizing will affect the drape somewhat, but not greatly, little can be done to make one drape appear like another. Consequently it is essential to know the drape of the fabric, for the drape determines internal and symbolic lines.[15]

Weave of fabrics.[16]--The way the threads of a fabric are interlaced give to it its particular weave; fabrics can be classified according to their weave by placing them on a continuum from most coarse to most fine.

Social and economic status and vocation are frequently indicated by the weave of a cloth--royalty wear finer fabrics than peasants; outdoor people wear coarser fabrics than do those of the drawing room.

The weave of a fabric can be altered in appearance by the costumer, but it is more surely altered by the stage lighting. The costumer should early study the effects of stage lighting on various basic fabrics' weaves, textures, and colors.

Texture of fabrics.[17]--The relative amount of light that a fabric surface selectively reflects or absorbs varies

----

[15]Gassner, p. 760. Young, pp. 22-23.

[16]Gassner, pp. 760-61.

[17]Bowman, pp. 99-100. Dolman, p. 375. Gassner, pp. 761-65. Young, pp. 23-26, 61-76.

greatly giving each fabric its surface appearance, or texture. Fabric textures can be placed on a continuum from most shiny to most dull. And, like weave, texture is an indicator of a person's social, economic, and vocational status.

The texture of a fabric will certainly be altered by stage lighting; it may also be altered by the costumer through a process of spraying, painting, and/or dyeing.

Color in costuming

Perhaps the most important and decisive variable in costuming is color. A costume color may be modified according to the surface area it covers and the symbolic significance it has for man.

Characteristics of color.--Pigment color has three characteristics--hue; saturation, or intensity; and value.[18]

Hue refers to the redness, blueness, greenness, yellowness of a color.

Saturation, or intensity, refers to the purity of a color, the amount of complementary hue or gray it has in its composition.

Value refers to the lightness or darkness of a color, the amount of white or black it has mixed with it. A color of high value (pink) is called a tint; a color of low value (red-black) is called a shade.

---

[18]Richard Corson, pp. 12-15. Heffner, pp. 295-99.

Each costume color can be classified with a relatively high degree of accuracy by codifying its hue, saturation, and value. Fabric manufacturers and theatre people in general unfortunately do not use such a system of classification.[19]

Surface area of color.--Different colors, as well as other applied lines, tend to wash together under stage lighting and distance. Consequently, surface areas of color must be modified and simplified into large, clearly defined blocks of less pattern and detail variety than a real piece of clothing.[20]

Symbolic significance of color.[21]--Objects in nature are frequently associated with their predominant color; their predominant color, in turn, comes to symbolize the predominant qualities of the object. Thus, black was associated with night and has come to symbolize mystery and death, blue was associated with the sky and sea and has come to symbolize stability and coldness, red was associated with fire and has come to symbolize warmth. This natural color symbolism can be used to enhance the general mood of the play and/or differentiate and help describe characters.[22]

[19]Corson, pp. 16-17. Heffner, pp. 362, 364.
[20]Gassner, pp. 118, 399. Heffner, pp. 429, 447.
[21]Above, pp. 72-74.
[22]Gassner, pp. 403-10. Heffner, pp. 430-31. Young, pp. 123-33.

Warmer colors and greater intensities generally re-flect a more comic mood; cooler colors and lesser intensities, a more tragic mood.[23]

A differentiation in actors' costumes helps effect an audience identification of characters. If the costume differ-entiation includes symbolic use of color--as red for a more passional and warm character and blue for a more constant and cool character--the audience will more readily understand the characters' personalities. If, in addition, the principal characters dominate by greatest costume differentiation, the audience will more readily recognize their significance.

Choosing symbolic costume colors requires choice of colors which will give the desired effect under the stage lighting.[24] Generally speaking, the more unsaturated colors are the least affected by stage lighting, a given color is enriched by the same color in lighting, and a given color is dulled by its complementary color in lighting. The exact effect of a given light upon a given costume is known, however, only by actual placement of the fabric under the given lighting.

Producing a costume design

Information required
for a costume design

---

[23]Gassner, p. 410. Heffner, p. 431. Young, p.123.

[24]Bowman, pp. 4, 150. Dolman, p. 376. Gassner, pp. 398-99, 407-10. Heffner, pp. 431-32. Young, pp. 137-46.

Basic requirements.--With a knowledge of the purposes of costuming and the ways to vary costumes in accordance with those purposes, the costume designer is ready to consider specific requirements of a given production.

Script requirements.[25]--From the script, the costume designer will learn the apparent general mood of the play, time and place of the play action, number of scenes, number of characters, principal characters, basic nature of each character, costume changes and length of time for the changes, and specific costume requirements dependent upon the action--such as a pocket for a prop. All of these factors, however, are subject to the production interpretation of the director, and no work on costuming design should begin until the director is consulted.

Director's requirements.[26]--From the director, the interpretation of the production is learned (the basic style and mood to be emphasized), as well as any modifications of the script itself; time, place, number of characters, emphasis of characters, costume changes may be altered. The director may also indicate a choice of costume color, line, and/or fabric for any character(s).

Other technical design requirements.[27]--Productional unanimity of emphasis is especially dependent upon integration

[25]Gassner, pp. 393-94.

[26]Gassner, pp. 393-94, 397-98.

[27]Gassner, pp. 394, 397-99, 403.

of all the technical areas with one another and with the director's interpretation. Ideally, the director meets jointly with all technical designers. Additional sub-meetings of any number and group of the above persons will probably be necessary; certainly there should be as many meetings as are necessary for maximum coordinated effort.

The costume design is frequently subject to modification (especially in color and style) by prior set and light designs; although, at times, costuming may be considered of more predominant importance than either or both set and lighting. Whatever its relative predominant status in the technical areas, that will be its position in time order of design. But, regardless of its time precedence, costume design must be integrated with all other technical areas.

Makeup and costumes have similar specific purposes-- helping the actor portray the character--and should be especially closely integrated in designs. Hand properties must be in harmony with the costumes.

Blocking requirements.--Costumes are one of the most fluid parts of the design, for they move over a great area of the set in an infinite number of patterns. Therefore, each costume must be coordinated with the other costumes that appear on stage with it. Knowledge of the blocked groupings of actors is essential to know which costumes will be seen with one another and in what position--beside one another, in opposition to one another, and so on.

Equipment requirements.[28]--The greatest equipment considerations in costuming are the budget and the available stock of costumes. Consideration of these two factors will help determine whether costumes will be bought, rented, borrowed, made, or several done in each of several ways.

If costumes are to be made, additional considerations are necessary: sewing room and equipment; dyeing room and equipment; washing, ironing, and storing facilities; and available persons to make the costumes.

Graphic recording
of a costume design

The recording of the costume design requires a costume plot, costume sketches, and perhaps additional diagrams and plates. The costume plot should include the name of each character and a costume description for him in which there is listed the line, fabric, and color of the basic garment, the outer garment, footwear, and any accessories for each scene in the play in which there is a costume change.[29]

Each costume when completed should have on it a tag stating the character to whom it belongs, the scene in which it belongs, and a brief description of it.[30]

---

[28]Gassner, pp. 766-78. Heffner, pp. 436-39, 441-48, 452-53.

[29]Heffner, pp. 437-39.

[30]Gassner, p. 779. Heffner, p. 439.

Execution of a costume design

Method of execution.--Costumes may be borrowed, rented,
bought, or made.[31] Determination of which method is best
depends upon the type of costume, type of production, budget,
season of productions, and equipment and facilities avail-
able.[32]

If the budget is minimal, the best (and perhaps only)
way to execute the costumes is by borrowing. Using modern
dress productions and the actors' own or borrowed clothing or
using productions set in recent times and borrowing from friends
and people in the community will be most inexpensive. The
fact that stage makeup and wear is hard upon clothing will
make borrowing disadvantageous. Borrowing costumes also limits
productions to those which can be done in recent settings; if
costumes are borrowed throughout a season or several seasons
of plays, necessary variety will be lacking.

Generally speaking, the next least expensive plan is
to make costumes. Initial cost will be great, but the reuse
and rental of the costumes will (over a period of time)
minimize cost. With a small budget, the high initial cost may
permit making only a few costumes for each production, but
over a period of time such a process will help develop the
most desirable costume situation--a stock of costumes for
rental and reuse. Making costumes has an additional advantage

---

[31]Dolman, p. 375. Gassner, pp. 113, 765. Heffner,
pp. 420-23.   [32]Gassner, pp. 765-66.

in educational theatre of making available to the students
the practical study of that area of theatre. There are some
exceptions to the desirability of making costumes--the length
of time required, the cost of material, and/or the lack of
reusability may make rental, borrowing, or buying of some
costumes more advantageous.

Rental is generally the third least expensive costume
execution. For any given show it is often less expensive to
rent than to make costumes, but, if the future program is
considered, rental should be used only if the budget, equipment,
or time will not permit making the costumes or if the types of
costumes are of little reusable value or very difficult to
make.

Although buying costumes is generally the most expen-
sive and least satisfactory way of costuming a show, there
are some costumes for which the wisest execution is purchase--
uniforms, old fur pieces, and so on. Plain cotton frocks may
be a good purchase if their color and pattern are not a dis-
advantage under stage conditions.

Making costumes requires a good cutting (to get the
correct silhouette line), basting, fitting, sewing, pressing,
and tagging. All of the other processes require fitting,
possible sewing alterations, pressing, and tagging.

Costume rehearsal.--The costume rehearsal is for the
actor to become familiar with and learn how to wear his costume
and for the designer to determine any necessary changes for the

final costume design.[33] All that can possibly be done to
insure proper color, line, fabric, and fit in costumes prior
to costume rehearsal (for example, a prior dress parade with
accurate stage lighting and blocking) is usually most impor-
tant, for the costume rehearsal frequently comes close to the
date of production and little time is allowed for adjustments.[34]
If any costume is of a type particularly unfamiliar to the
actor, prior rehearsal should also be used to help him learn
how to wear his costume properly and without ill ease.

From the costume rehearsal through productions, a ward-
robe master should be available to check costumes out and in;
seamstresses should be available to take care of costume emer-
gencies (tears, lost buttons, and so on); and dressers should
be available for any quick or difficult changes.[35]

Dress rehearsal.--The objective of costumes during
dress rehearsal is accurate and integrated execution of the
final costume design as determined by costume rehearsal.

Costuming Considerations
Applied to Oedipus Rex

The costuming for the Oedipus Rex production at State
College was designed by and executed under the supervision
of a member of the Speech Department other than the technical
director. (All areas of design and execution may be delegated

---

[33]Heffner, p. 423.

[34]Dolman, p. 376. Gassner, p. 399. Heffner, pp.
423-25.

[35]Heffner, p. 451.

to persons other than the technical director; his sole function
may be as technical coordinator.) The technical director's
knowledge of the costuming for Oedipus Rex comes from neces-
sary knowledge of the production as a whole and from meetings
with the costume designer.

Information required

Basic requirements

The costume designer was acquainted with the basic
requirements of costuming both from her work leading to a
M. A. in theatre costuming and from her prior costume design-
ing as the State College Theatre costumer.

Script requirements

The chosen script[36] indicated the following apparent
requirements:

1. The play's generally tragic mood would indicate
cool colors and a non-comic design.

2. The ancient Greek play could indicate costumes pat-
terned after ancient Greek clothing or ancient Greek costumes.[37]

3. The religious significance of the play might or
might not be emphasized.

4. Unity of time, place, and action[38] might indicate
no or few costume changes.

---

[36]Theban Plays. pp. 25-68.

[37]Above, p. 55.

[38]Above, p. 47.

5. The cast list would include persons of various social status--royalty, servants to the royalty, elders, citizens, and so on--who would require costume differentiation. Oedipus would require the most marked differentiation.

6. The exact number of king's attendants, queen's attendants, citizens of Thebes, and Theban elders would have to be ascertained from the director.

Director's requirements

From the director the following was learned:

1. The style of the play would not attempt realism.

2. The religious nature of the play would be deemphasized.

3. The costumes should reflect Grecian dress somewhat in silhouette lines, but should be modified in accordance with the interpretation of the production.

4. The costumes should be simple and unornate.

5. Cool colors should predominate.

6. No costume changes would be necessary.

7. Stylized makeup and not masks would be used.

8. Cothurni would not be used.

9. The chorus of Theban elders would serve as the Theban citizens, too; it would number six to eight men and six to eight women; all men should be dressed similarly and all women should be dressed similarly.

10. There would be one palace official.

11. "An attendant" would become two female attendants.

12. Ismene, Antigone, and a boy to lead Teiresias would all be used as indicated in the script, although they are lacking from the script's cast list.

13. All other characters would be the same as indicated on the script cast list.

14. Oedipus and Creon should have laurels denoting their regal status; Oedipus' should dominate. (Consider this jointly with properties.)

Other technical area requirements

In Oedipus Rex, the set took superordinance over the costuming in time order of design and predominance of decision except in the area of color. The set and costume colors were coordinately selected--blue-green, blue, blue-red, red-orange. The exact hue was to be determined by costumes, for paint pigments are generally more easily matchable to a given color than are fabric colors--even with dyeing.

Costumes would necessarily be coordinated with all other technical areas in style, but lighting and properties would be subordinate to costumes. Use of makeup rather than masks would require careful joint consideration (by the makeup designer and costume designer) about hair styles.

Blocking requirements

The continual presence of the chorus made it advantageous for them to be costumed in harmony with all other characters. Their blocked continual (but slow) movement on

various levels would indicate costumes which would move readily
and softly with the actors.

Equipment requirements

The costumes were to be made; some available costumes
could be reused; the budget would permit purchase of materi-
als for costumes for Oedipus, Jocasta, and the women of the
chorus. The greatest equipment limitation would be on the sew-
ing room itself--an unventilated room approximately ten feet by
twelve feet in size.

Graphic recording of
the costume design

Producing the design

Historical basis.--Ancient Greek clothing served as
the basis for the costume design; therefore, the basic clothing
of ancient Greece[39] will be listed and described.

Chiton.--The basic garment for both men and women was
a large rectangular piece of fabric called a chiton. The
chiton was worn next to the skin; was fastened on each shoulder
by a fibula, similar to a safety pin; and was worn with or with-
out a belt. Women wore ankle-length chitons; men wore knee-
length chitons except for ceremonial occasions when they, too,
wore ankle-length ones.

----

[39]Chalmers, pp. 50, 52-53. Gassner, pp. 397, 403.
Carl Kohler, Emma Von Sichart, and Alexander K. Dallas, A
History of Costume (New York: G. Howard Watt, 1930), pp. 93,
95-96, 99-100, 102, 105. R. Turner Wilcox, The Mode in Cos-
tume (New York: Charles Scribner's Sons, 1944), pp. 11-13.

The two basic types of chitons were Doric and Ionic.
The Doric was made of soft wool with a single fastening at
each shoulder and was usually belted. The Ionic was made of
sheer linen or fine cotton (later silk) and had several fibulae
along each arm making the top form loose sleeves if the waist
were belted. There was also a short-sleeved Ionic chiton.

Men of action frequently fastened their chitons on only
the left shoulder leaving the right arm free.

Both men and women sometimes wore a second belt around
the hips.

Peplos.--For outer garments, women frequently wore the
peplos--a shawl-like piece of fabric fastened on the shoulders
and draped from the shoulder to the waste.

Himation.--An outer garment worn by both men and women
was the himation--a fabric of approximately one and one-half
by three yards in size draped about the figure, usually over
but one shoulder.

Chlamys.--A second type of outer garment worn by the
men was the chlamys--a rectangular fabric of approximately one
by two yards fastened at the shoulder or in front with a clasp.

Women's hair.--Women's hair was long and was worn some-
times in a chignon at the back of the neck, sometimes covered
by a floating veil, sometimes with veils wound in it, some-
times in a caul, or net.

Lines and fabric.--The silhouette of ancient Greek
clothing was loose and unhampering and did not differ among

economic or social classes. Ancient Greek clothing came from
soft, heavy materials with rich full drape. Applied line--
rich borders of weaving and embroidery--differed greatly and
was a partial indicator of economic and social status. The
texture of all Greek clothing was relatively dull; although,
difference in fabric texture was a partial indicator of differ-
ence in social and economic status.

Historical application.-- All costumes were modifica-
tions of the basic ancient Greek clothing.

Women of the chorus wore modified, unbelted Doric chi-
tons. The modifications were (1) added fullness; (2) attached
drape in front; (3) attached train in the back; (4) nylon
chiffon, not wool, fabric; and (5) colors coordinated with
the production--tints of blue-green, blue, blue-red, and
pink-brown. The added fullness, drape, and train, as well as
the soft, light fabric could be utilized advantageously in
the dancelike, blocked movements of the chorus. The added
drape and train would not be too cumbersome, for the chorus
movements would be slow. The cooler colors would reflect
the tragic mood of the play. The naturally short hair styles
of many of the women were concealed in chignons netted in
snoods (similar to a caul) the color of their costumes.

Men of the chorus wore a short-sleeved, girdled, knee-
length, modified Ionic chiton. The modifications were (1)
less fullness, (2) denim fabric, (3) colors of the production--
medium values of blue, blue-green, and green-blue-green and

shades of blue-green. The reduced fullness, deeper color values, and heavier fabric were more masculine.

The boy to lead Teiresias was costumed as the man of the chorus.

The palace official was costumed similarly to the chorus men; his costume differed only to indicate his social status--had trim, was an unsaturated shade of maroon, and included a headband.

Teiresias wore an ankle length, girdled chiton of a brown shade--presumably the mourning color of ancient Greece. The chiton was modified to include long, full sleeves symbolic of his role as prophet.

The priest was costumed similarly to the men of the chorus; his chiton differentiated him from them by its color, medium gray; its greater fullness; its ankle-length; and its long, loose Ionic-like sleeves--all symbolically indicative of his religious role.

The shepherd was also costumed similarly to the men of the chorus. His chiton differed only in color (gray) and length (ankle). His himation--a shade of green burlap fabric--was indicative of his outdoor livlihood and social status.

The messenger was costumed as the chorus men except that he had a chlamys--a brown shade in color and denim in fabric.

The attendants wore a modification of the basic chorus women costumes. Modification included (1) less fullness, (2)

no attached drape or train, and (3) taffeta fabric. The attendants were also differentiated by wearing nylon chiffon peplos and flowing veils at the back of the head.

The young daughters of Oedipus and Jocasta were costumed similarly to the attendants; costumes were of slightly deeper color values and cross tied in the front; there were no peplos or hair accessories.

Jocasta, as queen, was the most strongly differentiated woman. Her chiton was of silver and pink lamé; her overgarment was a modified himation of red-bronze satin fastened at both shoulders and belted. She wore a headband; her headband, himation, and chiton were all richly trimmed.

Creon's chiton differentiated him from the chorus men by greater fullness, fabric richness and color (white terry cloth), and trim. In addition, he wore a gold corduroy chlamys and a green laurel.

Because Oedipus was the character of central interest, his costume colors, richness, and decoration were of greatest differentiation. His ankle-length chiton of deep bronze silk was fastened on the right shoulder alone; his modified, belted himation of white terry cloth hung over the left shoulder alone. Rich trim and a gold laurel completed his costume.

Overall minimization of jewelry, decoration, and trim was purposely not of historical accuracy but coordinated with the productional simplicity.

Recording the design

The costuming design for _Oedipus Rex_ included the costume plot and sketches. The sketches are neither available nor reproducable for this thesis, but the plot and five plates serve as graphic recording of the design.

In order to make the graphic recording more compact, a consistent set of symbols and abbreviations is used.

_Abbreviations.--_Each costume is listed after the character(s) for whom it was made; each character's name is abbreviated.

Code for character names:

Mn--men of the chorus
W--women of the chorus
B--boy to lead Teiresias
PO--palace official
T--Teiresias
P--priest
S--shepherd
M--messenger
1A--first attendant
2A--second attendant
I--Ismene
A--Antigone
J--Jocasta
C--Creon
O--Oedipus

Ss. stands for soft sandals; Fab., for fabric; Col., for color; Brze., for bronze; Flts. for flats.

_Colors.--_Colors are listed according to hue and value. Value is designated from one to twelve; one is the lightest tint, twelve is the deepest shade. Hue is designated by letter. Silver and gold colors are written in full.

Code for color hue:

R--red   B--blue
O--orange   Br--brown
G--green   N--neutrals from white to black

Plates.--In addition to Plates III through VII, Plates
IX, XI, XIII, XV, and XVII also pictorially record some of the
costumes.

Execution of the costume design

Making the costumes

All costumes were either made or altered from the avail-
able stock of costumes. The designer helped in cutting; stu-
dent help did most of the sewing; fittings were arranged for
each cast member, and all costumes were tagged.

Costume rehearsal

Costume rehearsal indicated necessity for altering some
hemlines and footwear; but fabric, silhouette line, and color
were not altered for the production.

The costume staff hung all men's costumes on a rolling
rack which they took to the men's dressing room each night
from costume rehearsal through performances. The same pro-
cedure was used for women's costumes. The costume staff was
also available to assist in any necessary costume repairs or
dressing problems.

Dress rehearsal

No further alterations were made in the costume design
for the production.

TABLE 8

FINAL COSTUMING DESIGN FOR OEDIPUS REX

Cast	Basic garment--chiton			Overgarment			Headgear			Footwear	Plate	Trim
	Line	Color	Fab.	Line	Col.	Fab.	Line	Col.	Fab.			
Mn.	Girdled, short-sleeved, knee-length, unfull	B5 BG5 BGG5 BG9	Denim	None			None			SS.	III	None
X.	Ungirdled, extra fullness, added drape & train	BG2 B2 RB2 RBr2	Nylon chif-fon	None			Net, or snood	BG2 B2 BR2 RBr2	Nylon chif-fon	SS.	III	None
B.	As Mn.	B5	Denim	None			None			None	IV	None
PO.	As Mn.	RRB10	Denim	None			Head-band			SS.	IV	Bor-ders
T.	Girdled, ankle-length, full; long, full sleeves	Br10	Denim	None			None			None	IV	N12 ola-vus down front
P.	Ankle-length, full; long sleeves	N7	Denim	None			None			SS.		None

157
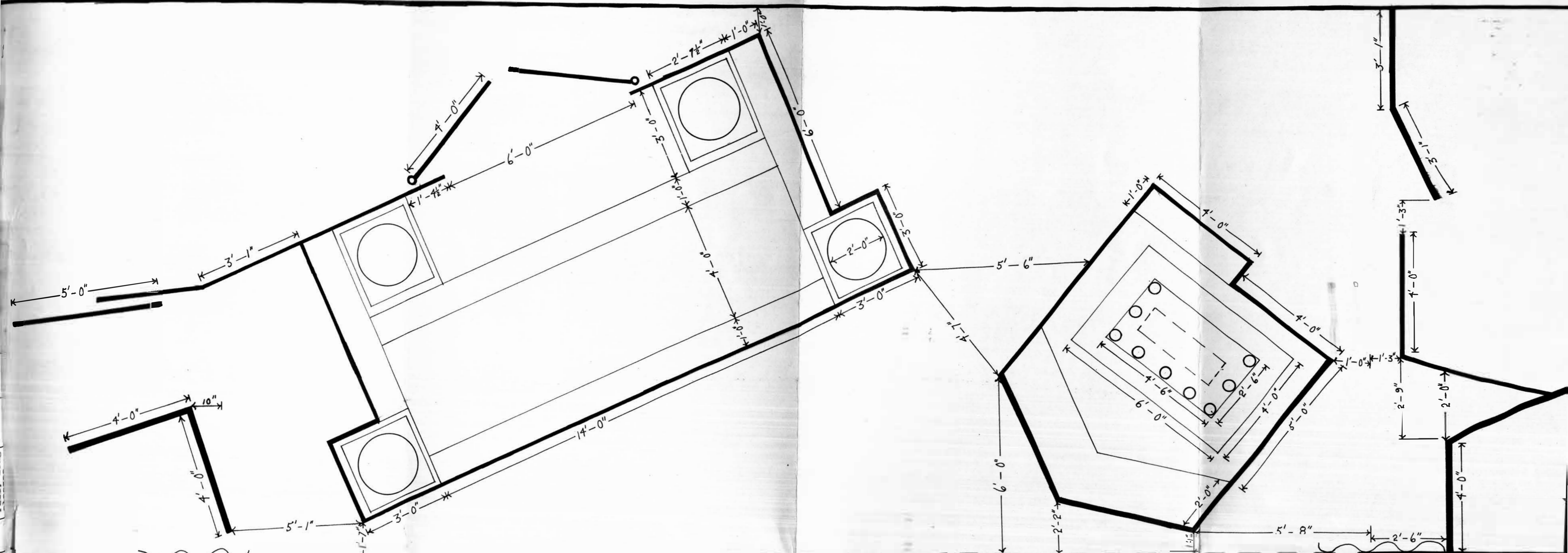
Proscenium Opening - 37'-10"
Stage Depth - 18'-0"

DIAGRAM
FLOOR PLAN

S.	Ankle-length	M7	Denim	Hima-tion	GlO	Bur-lap	Bone			SS.	V	None
K.	As Mn.	B8	Denim	Chla-mys	Brl0	Denim	Bone			SS.*	V	None
1A.	Plain Doric, ungirdled	RO4	Taf-feta	Pep-los	RBr2	Nylon chif-fon	Flow-ing veil	RBR2	Nylon chif-fon	SS.	VI	None
2A.	As 1A.	RB3	As 1A	As 1A	RB2	As 1A	As 1A	RB2	As 1A	SS.	VI	None
I.	Plain Doric, girdled	R2	Taf-feta	None			None					Cross tied sash
A.	As I.	RRB4	As I.	None			None			SS.		As I
J.	Plain Doric, girdled	Silver and pink	Lamé	Bel-ted hima-tion	Red-brze.	Satin	Head-band			Plts	VII	Rich bor-ders
C.	As Mn., but more full	Ml	Terry cloth	Chla-mys	Gold	Cor-duroy	Lau-rel	GlO		SS.	VII	Rich bor-ders
O.	Ankle-length, girdled, across right only	Brze.	Silk	Bel-ted hima-tion	Ml	Terry cloth	Lau-rel	Gold		SS.	VII	Rich bor-ders

*with laced ankles.

PLATE III

Basic costume for men and women of the chorus.

PLATE IV

Basic men's costume modified for the boy,
palace official, and Teiresias.
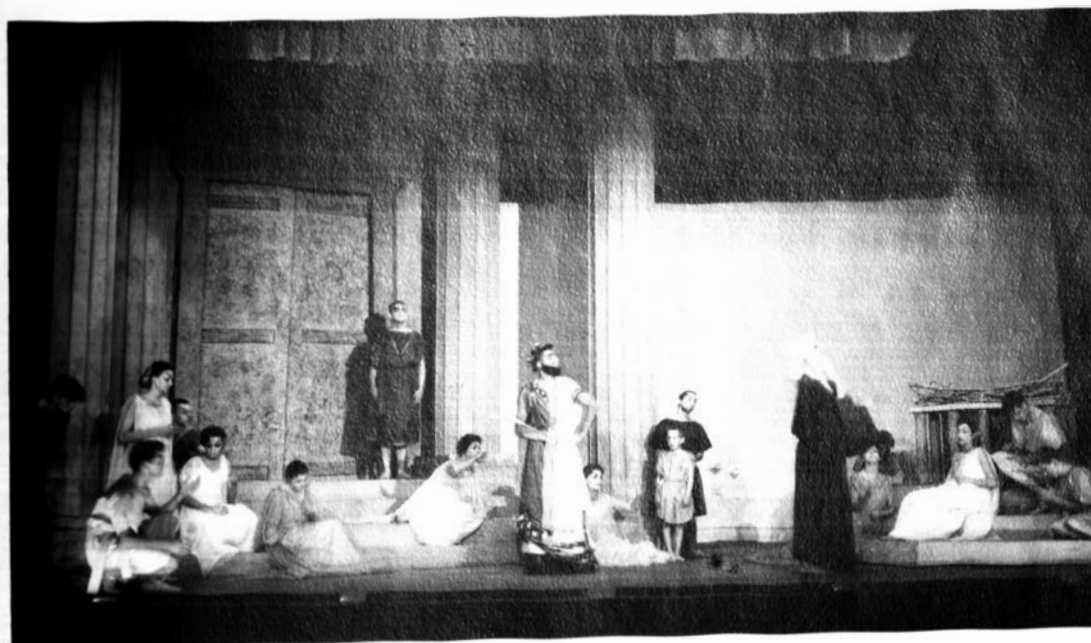
PLATE V

Basic men's costume modified for the shepherd
and messenger.

PLATE VI

Basic women's costume modified for the attendants.
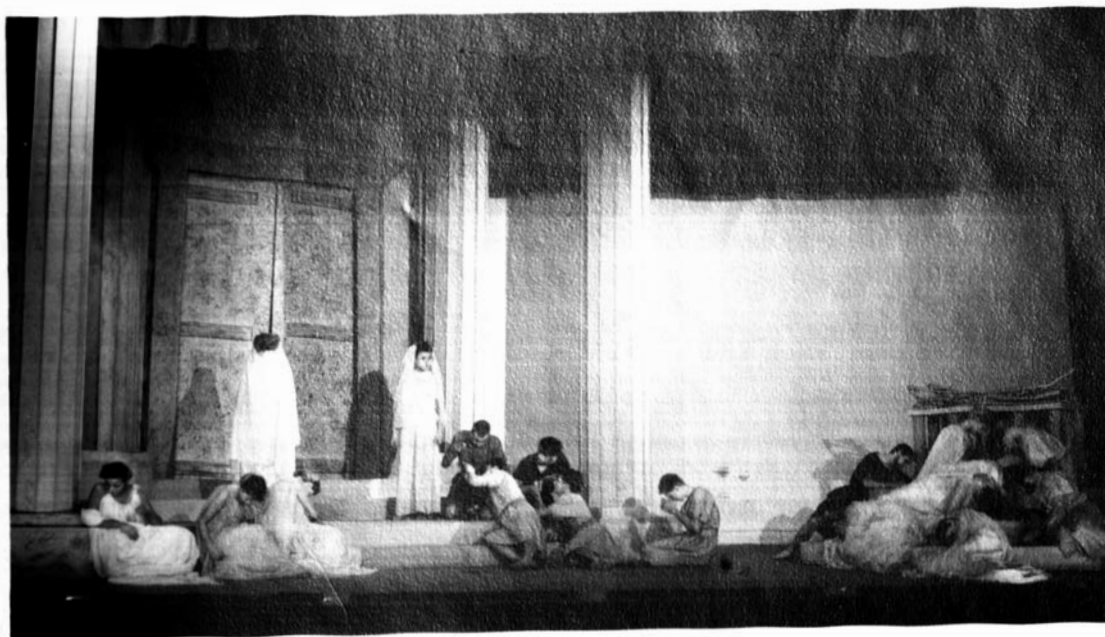
CHAPTER VI

DESIGNING AND EXECUTING THE LIGHTING

TABLE OF CONTENTS FOR CHAPTER VI

Part 1. General Considerations in Lighting

BODY FOR CHAPTER VI

General Considerations in Lighting

Three variables of lighting

The primary purpose of lighting, too, is to aid in presenting the play.[1]   And, since there are so many factors in lighting that can be varied, lighting can become one of the most flexible, important, and expressive parts of a play.[2] On the other hand, the great number and complexity of the variable factors in lighting can be a disadvantage[3]--the exact effect of a particular piece of lighting may not be known except by actual production of it; some factors (electricity, color, lighting instruments) are frequently poorly understood, for study of them can become complex. However, the study of lighting need not become bafflingly complex, and a general understanding of lighting control can lead to play productions of greater value for the technicians, actors, and audience.[4] The technician who understands lighting control can accomplish all possible effects of artificial lighting

---

[1]Bowman, pp. 154-61. Gassner, pp. 118, 120. Heffner, p. 428.

[2]Bowman, p. 1. Dolman, pp. 317, 340. Friederich, pp. 54-55. Gassner, pp. 107-17, 781-82.

[3]Friederich, p. 54. Gassner, pp. 788-89.

[4]Gassner, p. 783. Heffner, p. 372.

by changing the three general controllable, or variable, factors in lighting--quantity, color, and distribution.[5]

Quantity in lighting

Definition and measure of quantity.--The quantity of light refers to the amount of light present on a given area. By use of a photoelectric cell, light quantity could be measured in lumens per square meter for any given place on the stage.[6] However, for the light designer, an approximation of the quantity of light is sufficient for deciding whether there will be the proper amount of light for the play, for other not-easily-calculative variables (for example, movement of actors whose makeup, costumes, and hand props act as light reflectors) constantly change the quantity of light on a given stage area. The light designer can approximate the quantity of light by considering the number of lamps of a given wattage directed from a given type of instrument which is placed at a given distance from the illuminated surface and contains a given color media. (This approximation will become more meaningful to the reader as the rest of the chapter is read.) By insuring more than sufficient light in the light design, the proper quantity can be secured during technical

[5]Bowman, pp. 1-3. Friederich, p. 54. Gassner, pp. 408-10. Heffner, pp. 324-26.

[6]Francis Weston Sears and Mark W. Zemansky, _University Physics_ (Cambridge, Mass.: Addison-Wesley Press, Inc., 1950), p. 746. Gassner, pp. 784-85.

rehearsals by setting the light dimmers at the correct
level.[7]

Control of quantity.--Control of light quantity (as
well as color and distribution) is most effectively done by
gradually dimming lamps in and out,[8] for a gradual change
in light is less perceptible and tiring for the human eye
than is a sudden change.[9] There are numerous types of light-
ing control boards with dimmers of various kinds--reactance,
autotransformer, resistance. The most suitable type of
board for any theatre depends upon the types of productions
given by that theatre, the theatre budget, the stage, other
lighting equipment, the technicians using the lighting equip-
ment, and other factors peculiar to the given theatre. Each
theatre should consider acquiring or altering its control
system only after examination of all the relevant factors by
an expert in theatre lighting. There are, however, several
general considerations in acquiring or altering a lighting
control board for any theatre.[10]

1. A salesman cannot be considered a theatre light-
ing expert, for he will not know a given theatre nor all

---

[7]Gassner, p. 790.

[8]Bowman, p. 108. Friederich, pp. 54-55. Gassner,
pp. 365-66. Heffner, p. 383.

[9]Heffner, p. 325.

[10]Dolman, pp. 336-37. Gassner, pp. 115, 786-88, 794,
805-806. Heffner, pp. 374-97.

makes and kinds of control equipment, and his primary purpose
is to sell his product.

2. The most flexible lighting control has some means
of connecting any outlet or number of outlets (to which the
lighting instruments are connected) to any dimmer and switch
on the lighting control board.

3. Some means of later adding to the control board
is frequently desirable.

4. Switches should be silent in operation; toggle
switches are often noisy.

5. Dimmers of different wattages may be desirable;
total current capacity should be sufficient.

6. Location of the control board demands two con-
siderations. First, the size of the control board (including
necessary space behind it for repairs and ventilation and space
for adding to the board if desired) must be known. Second, a
clear line of vision of the whole acting area by the control
board operator(s) is greatly desirable and best achieved by
placing the control board at the rear of the auditorium either
on the main floor or on a low balcony.

7. The control panel must be absolutely safe; no hot,
or live, terminal connections should be near control switches.

If no light dimming system is available, lighting con-
trol becomes relatively complicated and inflexible. More light
can be acquired by using more lamps, by using lamps of a greater
wattage, by using more efficient lighting instruments, by placing

instruments closer to the acting area, or by using color media of lower saturation. Manipulation of the above list of variables can give a set quantity of light; however, gradual change in that set light quantity (as well as color and distribution) is impossible. The only means of varying light quantity in a non-dimable light system, turning lamps on or off, creates a sudden change. Since effective and flexible lighting control is impossible without a means for dimming the lights, having a dimming system should be one of the basic considerations of the play producer.[11]

Color in lighting

Definition and measure of color.--Color refers to the threefold characteristics of light which affect the retina of the human eye--hue, saturation, and brilliance.[12] Hue refers to the dominant wave length of a color. It is what we generally mean if we describe something as red, yellow, orange, blue.

Saturation refers to the purity of a color, the amount of a complementary hue it has in its composition. White light is completely unsaturated; blue light completely free from yellow light is completely saturated, or pure, blue;

---

[11]Bowman, p. 108. Dolman, pp. 355, 369. Friederich, p. 54.

[12]Bowman, p. 92. Gassner, p. 113. Heffner, pp. 363-64. Sears, pp. 744, 757.

blue light with some yellow in it is only partially saturated, or pale blue.

Brilliance refers to the amount of illumination on the surface of a color; a color of low brilliance is called a shade.

In stagecraft there is no universally applicable system of color designation in color media for lighting, paint pigment, costume materials, or makeup.[13] Consequently, there can be great confusion in designing unless the designer uses actual samples of the color or a systematized color designation for his designing.

Control of color.--Color in lighting is controlled by the color medium and the method of color mixing--additive or subtractive.[14] Lighting color media--glass, lamp dip, gelatine, cellophane, cinabex[15]--all have unique uses based upon their specific properties.[16] See Table 9 on the following page for a tabular listing of the properties of each color medium. All media reduce the quantity of light. Primary

[13]Bowman, pp. 92, 99. Corson, pp. 16-17. Heffner, pp. 362, 364.

[14]Friederich, p. 55. Gassner, p. 114. Heffner, pp. 364-67.

[15]Manufactured by Paramount Enterprises, 242 West 27th Street, New York 1, New York.

[16]Bowman, pp. 101-102. Dolman, pp. 338, 344-46. Gassner, pp. 114, 364, 795, 802, 804. Heffner, pp. 367-69.

TABLE 9

PROPERTIES AND USEFULNESS OF COLOR MEDIA

Color medium	Glass	Cinabex	Gella-tine	Cello-phane	Lamp dip
Reaction to heat	Heat-resistant	Affected slightly	Affected readily	Affected readily	Burns off readily
Reaction to moisture	Moisture-resistant	Affected slightly	Affected readily	Affected somewhat	Affected slightly
Reaction to fading	Non-fading	Nearly non-fading	Fades readily	Fades readily	Nearly non-fading
Spectral purity	Good	Good	Poor	Poor	Fair
Number of colors	Few; includes primaries	Great variety	Great variety	Few	Few; includes primaries
Mechanical strength	Excellent; breakable	Good	Poor	Fair	
Cost	Initial, great; long run small	Initial, medium; long run small	Initial, small; long run medium	Initial, small; long run medium	Initial, small; long run great
Size and shape	Permanent; usually round	Cutable; fits any plane surface	Cutable; fits any plane surface	Cutable; fits any plane surface	Applied to bulb
General utility	Best and cheapest if colors & shapes are right	Best flexible color medium	Cinabex is better	Cinabex is better	Generally unsatis-factory

color media transmit only a fraction of the light; unsaturated color media transmit considerably more.[17]

Additive mixing of color is the production of a given color of light by the addition of two or more colors.[18] White light can be produced by adding together all the colors of the spectrum or by adding together the three light primaries—saturated red, green, and blue.[19] Furthermore, any color can be produced by adding the three primaries in various amounts.[20] For examples: red and green give yellow; blue and green give blue-green; red, yellow, and blue (yellow is red and green) give pink, or partially saturated red. Striplights frequently use a process of additive mixing to produce any desired color. The color is changed by changing the relative amounts of the primary colors, each of which is varied by connection to its own dimmer and switch. Additive mixing of colors is also frequently used in spotlighting if two lighting instruments with different color media are focused on the same stage area.

---

[17]Gassner, p. 114. Heffner, p. 369.

[18]Bowman, pp. 98-99. Dolman, p. 341. Gassner, pp. 113-14, 785-86. Heffner, p. 364. Sears, p. 758.

[19]Bowman, pp. 95-97. Corson, p. 27. Dolman, p. 341. Friederich, p. 56. Gassner, pp. 364, 785-86. Heffner, p. 364. Sears, p. 759.

[20]Bowman, p. 97. Corson, p. 27. Heffner, pp. 364-67. Sears, p. 759.

Any color medium permits only the light rays corres-
ponding to its color to be transmitted through it; the re-
mainder of the spectrum is absorbed. If, for example, white
light[21] falls on a saturated blue medium, only blue light
can be transmitted. If a saturated red medium is then placed
in the path of the blue light, no light will pass through the
red medium, for the red permits only red light to be trans-
mitted, and the blue medium has already absorbed the red
light rays. Subtractive mixing of lighting is based upon this
principle[22] and is constantly utilized in theatre, for a
colored medium is generally placed before any lamp in order
to transmit a given color--that of the color medium. Other
uses are made of subtractive light mixing, and one example
may serve as an indication of the scope of subtractive mix-
ing problems--passing white light through two color media of
secondary colors will produce the primary color common to
both. If, for instance, white light is passed first through
a blue-green color medium and then through a yellow one,
green alone will be transmitted through both. Blue-green,
blue, and green will pass through the blue-green color medium;
yellow, red, and green can pass through the yellow medium; so,
green alone will pass through both color media.

_____

[21]Electric lamps transmit an unsaturated yellow hue.

[22]Bowman, p. 99. Gassner, pp. 113-14, 364, 785-86.
Heffner, pp. 364-66.

Just as transmission of light is selective, so is reflection of light selective. Consequently, the colors of scenery, costumes, makeup, and properties will be determined not only by the colors of their pigments, but also by the colors of light that are reflected and/or absorbed by them.[23] Some examples of this principle in practice may indicate the complexity of problems that arise from it.[24]

1. A light of primary color focused on the surface of another primary color gives a gray or black appearance. If, for instance, saturated red light were to fall on a saturated blue surface, all the light would be absorbed, and the blue surface would appear black or gray.

2. A light of secondary color focused on the surface of a primary color of which the surface is partially composed gives the primary color. If, for instance, a yellow light (red and green) falls on a green surface, the surface will appear green; it will reflect the green light and absorb the red.

3. A light of primary color focused on the surface of a secondary color composed partially of the primary gives the primary color. If, for instance, a red light falls on a magenta (red and blue) surface, the surface will appear red; it will reflect the red light and have no blue rays to reflect.

---

[23]Bowman, pp. 99-101. Coreon, pp. 26-32. Friederich, pp. 54-55. Gassner, p. 114. Heffner, p. 367.

[24]Dolman, pp. 342-45. Gassner, pp. 114, 786. Heffner, pp. 367, 369-72.

Consequently, a thorough understanding of subtractive
mixing is essential for designing and executing a desired
effect in scenery, costumes, properties, makeup, and lighting.[25]

Distribution in lighting

Definition of distribution.--The distribution of light
refers to the way in which light of any quantity and color is
spread on a stage area from a given direction in order to
produce a given composition of light.

Control of distribution.--The distribution of light
is generally controlled by dimming in and out lamps housed
in one or more of the numerous kinds of lighting instruments.
The many lighting instruments can be grouped generally
into five classifications--floodlights, spotlights, beam
projectors, striplights, and special instruments.[26] Each
instrument can be described in terms of its specific housing,
type of lens and focus, beam edge, lamp size, length of throw,
and efficiency.

Floodlights.--Floodlights are lighting instruments
whose large open unlensed fronts are responsible for the
instruments' chief advantage (good efficiency) as well as

[25]Bowman, pp. 99-101. Corson, pp. 28, 32. Fried-
erich, p. 54. Gassner, p. 114. Heffner, pp. 369-72.

[26]Bowman, pp. 56-71. Dolman, pp. 338-39, 357.
Gassner, pp. 107-108, 112-13, 788, 791-805. Heffner,
pp. 339-60. Perfection Lighting Co., Inc., Capitol Stage
Lighting Apparatus (Catalog No. 25; Hillside, New Jersey:
Publishers Unknown, [1956]), pp. 20-42, 46-48, 52-59.

their chief disadvantage (a diffuse beam that cannot be fo-
cused). Floodlights generally carry from 500 to 1000 watt
lamps, produce a medium or soft edge beam, and are more use-
ful for short or medium length throws; a longer throw is
possible, but as the length of beam increases the width and
height of the beam increase greatly and the intensity of the
light diminishes greatly. The various kinds of floodlights
include olivettes, hanging floodlights, bunch lights, and
scoup lights.

1. An olivette is rectangular in shape and generally
uses a 1000 watt lamp; however it is capable of using
300 to 1500 watt lamps.

2. A hanging floodlight is rectangular in shape and
uses a 500 to 1000 watt lamp.

3. A bunch light is rectangular in shape and uses 10
to 12 lamps of 100 watts or less.

4. A scoup light is ellipsoidal or parabolic in shape
and uses a 40 to 1000 or more watt lamp depending upon the
scoup size.

Spotlights.--Spotlights are instruments which enclose
within a hood, a focusing slide holding a lamp and reflector.
The light is permitted to leave the instrument only through
the lensed opening. The various kinds of spotlights--general,
Fresnel, ellipsoidal, baby, and follow--all have the advantage
of a focusable, concentrated beam. Each has additional unique
advantages and disadvantages.

1.   The general spotlight has a plano-convex lens, produces a hard edge beam, carries a lamp of 500 to 2000 watts, is designed for short or medium throws, and has an efficiency of three to twenty-five percent. An additional advantage of this spot is its hard edge beam; its chief disadvantage is great inefficiency.

2.   The Fresnel spotlight has a Fresnel type lens, produces a soft edge beam, carries a lamp of 500 to 1000 watts (some models are designed to carry 2000 to 5000 watts), is designed for short or medium distances, and has an efficiency of up to fifty percent. Increased efficiency is an advantage; the soft edge beam can be disadvantageous.

3.   The ellipsoidal spotlight has a plano-convex lens, produces a medium or hard edge beam, carries a lamp of 500 to 1000 watts, is especially useful for long throws, and has an efficiency of seventy-five percent. Length of throw and efficiency are its additional assets.

4.   A baby spotlight is similar to a general or a Fresnel spotlight and differs only in that its hood is smaller and its lamp is 500 watts or less. It is used where a smaller hood or lesser wattage is desirable.

5.   The follow spot frequently has two plano-convex and one prismatic lens, produces a hard edge beam, carries a lamp of 1000 to 1500 watts, is designed for long throws, and varies in efficiency according to design. The arc follow spot throws a beam of greatest length and intensity but

has the disadvantages of being not dimable (because it op-
erates without a lamp) and very noisy in operation.

Striplights.--Striplights are lighting instruments in
which several lamps are placed in a straight line in a trough-
like housing; footlights and borderlights are of this general
type. Striplights vary a great deal in construction, but the
best ones have individual reflectors of a parabolic-spherical
shape, contain glass roundels for color media, and have alu-
minum reflectors with either regular or diffuse reflecting
surfaces. Striplights are non-focusable, have no lenses,
produce a soft edge beam, carry 40 to 200 watt lamps, are
designed for short or medium length throws, and have good
efficiency in the best instruments. They are most useful
for general illumination or for producing other light of an
even distribution and quantity.

Beam projectors.--Beam projectors--a sort of cross
between spotlights and floodlights--have large open lenseless
fronts but are somewhat focusable by movement of the lamp and
small front blinder. They produce a concentrated, narrow
beam of light surrounded by a beam of lesser concentration,
carry a lamp of 1000 to 2000 watts, and are most useful for
short or medium length throws; they are capable of throwing
a strong and long beam, but the diameter of the beam increases
greatly with the lengthened throw.

Special instruments.--Special lighting instruments
can be used to produce the effect of clouds, flames, snow,

waves, scenery, and other effects in either stationary or
moving form. If a stationary effect is desired, a lens pro-
jection will create a clear, detailed, sharply focused image;
a linnebach projector can be used to create an image of less
detail and sharpness. If a moving effect is desired, a
sciopticon can be used. In addition to lens projectors,
linnebach projectors, and sciopticons, a light technician
can utilize any combination of instruments, iris, masks,
funnels, hoods, color wheels, framing shutters, and any other
object in creating any effect he desires--fire, lightning,
twinkling stars, and so on.[27]

Two kinds of illumination--
general and specific[28]

General illumination

   Definition and purpose of general illumination.--
General illumination is shadowless light which has as its
purpose enabling the audience to see comfortably and clearly
everything that it is intended to see.[29]

   Control of general illumination.--General illumina-
tion is usually evenly and constantly distributed throughout

---

[27]Bowman, pp. 64-66, 127-40. Gassner, pp. 568-69.
Heffner, pp. 353-58. Perfection Lighting Co. Inc., pp. 46-48.

   [28]Heffner, pp. 324, 331.

   [29]Bowman, pp. 3-4, 15, 64. Gassner, pp. 782, 790.
Heffner, p. 327.

the stage area.[30] The quantity and color of the light are usually varied; although they, too, are even throughout the stage area at any given moment. The constant distribution is usually achieved by striplights (footlights light the stage area from below as light reflected from the ground or floor would normally do, border lights light from above the acting area) and beam lights (beam lights light from an angle above and at some distance in front of the acting area and usually aid specific illumination, also). Color is generally varied by additive mixing of the primaries in various proportions. It is usually desirable to utilize the color of general illumination to aid specific illumination in setting the mood of the play. For examples, a party scene might call for a partially saturated yellow or red hue; a stone cell might call for a shade of blue. Quantity of general illumination is usually controlled by dimming lamps in or out. Again, variety and control is useful in aiding specific illumination. For example, it may be desirable to vary the quantity of general illumination so that a festive scene has much general illumination and another scene has little or none during the production of a silhouette.

Specific illumination

Definition and purpose of specific illumination.-- Specific illumination is form-revealing or shadow-producing

[30]Bowman, pp. 15, 64. Gassner, p. 570. Heffner, p. 331.

light and has as its purpose to enhance the credibility of
the play by revealing form, approximating reality, and/or
enhancing the emotional and psychological effects of the play.

Control of specific illumination.--In specific illu-
mination, variety of distribution, color, and quantity are
all necessary to reveal form, approximate reality, and/or
enhance emotional and psychological effects of the play.[31]
The even distribution from general illumination makes scenery,
actors, props, the whole stage appear two-dimensional and un-
interesting, for the level of illumination on everything is
the same. Specific illumination is, therefore, necessary to
create highlights, shadows, variety of composition, and
three-dimensionalism.

Casting one hue of light on an object from one side
and another hue from the other side helps create the effect
of three dimensional form. Highlighting one area by increas-
ing the quantity of light in it plus shadowing another by
reducing the quantity of light in it also strengthens the
composition of the stage picture. Beam lights frequently
serve both of the above functions in addition to being uti-
lizable for general illumination.

Naturalistic accuracy is seldom necessary in stage
lighting, but an approximation of reality is usually most

---

[31]Bowman, pp. 4-8, 12-15, 56. Dolman, pp. 90-91,
296-97, 340-41, 345-47, 381. Friederich, pp. 69, 71, 109-11.
Gassner, pp. 107-17, 553, 783. Heffner, pp. 327-30, 332-38.

desirable; sunlight should be of a warmer hue than moonlight;
household lamps should be lighted at night.

Emotional and psychological effects can be enhanced by
specific illumination in many ways; listing a few examples may
help clarify this statement. The quantity of light desirable
for a mysterious effect is less than that desirable for a
festive effect. Seeing the shadow of a noose may be more
effective than actually seeing the noose. Color may heighten
effect in two general ways.[32] First, warm colors and higher
intensities can be used for comedy; cool colors and lower
intensities can be used for tragedy. Second, color symbolism,
in which a color may become the symbol for something else (red
may symbolize fire, black may symbolize death, green may sym-
bolize envy), can be used. Certainly color symbolism can be-
come so subtile and involved that obscurity alone remains for
the audience, but effective consideration of color can aid
greatly in presentation of a play.[33]

Any equipment may be used in any manner to produce a
given desired effect in specific illumination.

Producing a light design

Information required
for a light design

---

[32]Bowman, pp. 3, 6-7, 91-92. Dolman, pp. 345-47.
Friederich, pp. 109-11. Gassner, p. 108. Heffner, pp. 325-26.
[33]Dolman, p. 345. Friederich, pp. 109-11. Heffner,
p. 326.

Basic requirements.--Knowledge of the variables and kinds of lighting and their purpose and control is the basic requirement of the light designer. But the actual production of a light design for a specific show requires much additional information.

Script requirements.--First, the light designer must study the script carefully, thinking especially in terms of lighting.[34] Often it is useful to note and list the apparent basic light changes at this time. Or the designer may wait for this task until after the next step--consulting the director.

Director's requirements.--Second, the light designer must consult the director.[35] From the director he will learn what the particular approach to the play will be--(the style of the show and the basic mood) as well as any specific lighting considerations the director wants (special lighting effects, given colors, and so on).

Other technical design requirements.--Third, the light designer must consult the other technical designers.[36] It is most useful for all technical designers to meet jointly--

---

[34]Bowman, p. 9. Gassner, p. 377. Heffner, p. 399.

[35]Bowman, p. 10. Gassner, p. 377. Heffner, p. 399.

[36]Bowman, pp. 10, 149-50. Gassner, p. 377. Heffner, p. 399.

with the director if possible, at least after consultation
with him.

The director's approach will determine the general
time order of the initial lighting design. The set design
is commonly a prior consideration, but, if the show is to
be presented technically primarily through the use of light,
the set may necessarily need to be designed in accordance
with and after the lighting design. If costumes are of pre-
dominant technical importance, the lights must be adjusted
to their color and distribution in blocking. In a like
manner, makeup may be a strong determining factor in the
lighting. Consequently, the lighting design may be the ini-
tial step in the technical designs, or it may be dependent
upon other prior technical designs.[37]

But, regardless of their time order, all technical
areas must be coordinated and adjusted to one another in the
best possible manner for the total production.[38] In fact,
throughout the technical planning and execution, it is of
great importance to have close cooperation among the technical
departments in order that the production will have a maximum
amount of integrated work and number of good ideas.

_____

[37]Bowman, p. 10. Heffner, p. 400-408.

[38]Heffner, pp. 400-408.

Blocking requirements.--Fourth, the designer must learn from the director the light requirements that the blocking of characters demands[39]--which general areas should be high-lighted, which should be shadowed. The light designer should always attend rehearsal(s) after blocking is set; however, it is usually necessary to design the lighting before that point has been reached in rehearsal, so learning the blocking from the director prior to blocking rehearsals is usually necessary.

Equipment requirements.--Fifth, the designer must know the equipment including the budget he has and/or can have available.[40] In college theatre, the availability of the stage itself frequently limits the type of production.[41]

Graphic recording
of a light design

With these six general areas of information known, the light designer is ready to design the lights so that the requirements of all six areas are met in the most effective way he can plan. He records this plan graphically with the full realization that later modification may be necessary.[42] His graphic recording--light plot, cue sheet, and perhaps

[39]Bowman, p. 10. Gassner, p. 377.

[40]Gassner, p. 378.

[41]Above, pp. 83, 94-98.

[42]Gassner, p. 115.

additional diagrams--should make clear the number of instru-
ments used (assign a number to each), the type of each in-
strument, the number of lamps in each instrument, the wattage
of each lamp, the color of each color media, the purpose of
each instrument, the mounting position of each instrument,
the stage area covered by each instrument, the dimmer and
switch to which each instrument is connected on the control
board, and the dimmer readings of each instrument throughout
the show.[43]

Execution of a light design

Installing equipment.--The first step in execution of
the lighting design is to install the equipment in the thea-
tre[44]--preferably early enough so that certain lighting
effects can be tried before the mounting rehearsal devoted
to lighting, certainly before the lighting rehearsal itself.

Lighting rehearsal.--During the lighting rehearsal,
all lighting should be definitely set;[45] this may require
many changes and adjustments and a lengthy rehearsal. For
this reason, prior additions of lighting to the production
are helpful.

Dress rehearsal.--During dress rehearsal, the emphasis
in lighting should be upon smooth and accurate control.[46]

---

[43]Bowman, pp. 143-47. Colman, pp. 268-71, 409-10.
Gassner, pp. 115-17, 377, 789-90. Heffner, p. 399.

[44]Gassner, p. 378.   [45]Ibid.   [46]Ibid.

Additional changes should not be necessary at this time;
occasionally they may be, particularly if costumes and/or
makeup are added for the dress rehearsal.

Lighting Considerations
Applied to Oedipus Rex

Information required
for the light design

In producing the lighting design for Oedipus Rex, the
six step process listed on pages 183 to 185 was followed.

Basic requirements

A knowledge of the variables and kinds of lighting
and their purpose and control had been gained by prior course
work, back stage work, lighting design and execution, and
technical direction.

Script requirements

The chosen script[47] indicated the following requirements:

1. Naturalism or realism were not necessary, for the
play was not intended to be realistic even for the period of
its writing in the fifth century B. c.[48]

2. The tragic nature of the play would indicate pre-
dominance of cool colors and lower intensities.

3. The regal, formal, classical stature and language
of the play would indicate a like mood in lighting.[49]

---

[47] Theban Plays, pp. 25-68.

[48] Above, p. 45.   [49] Above, pp. 14, 44-47.

4.   The religious nature of the play could be empha-
sized or deemphasized.[50]

5.   Entrances, especially of the royalty, have a sig-
nificance that should be emphasized, perhaps by lighting.

6.   An act curtain might or might not be used. If
not, lights would take its place; if so, curtain and lights
must be coordinated.

7.   The chorus, if played by a group of persons (a
single person could be given the choral function), might
require or afford an opportunity for rich and varied com-
position in lighting.

8.   The classical divisions[51] of the play would appear
to indicate the basic light changes. Consequently, the play
was, at the time of script study, roughly grouped into the
following basic light changes:

         a).   The prologue, pages 25-30, is an explana-
tion by Oedipus, the priest, and Creon of the tragic situa-
tion at the play's opening. General illumination of a cool
color with special illumination for Oedipus, the priest, and
Creon would be probable lighting.

         b).   The parados, pages 30-31, is the entrance
of the chorus of Theban elders. Probable lighting would
include variety in the composition during the entrance--
especially if it is a group--and the long choral ode.

_____

[50]Above pp. 37-38, 45, 48, 54.   [51]Above pp. 45-46.

c). The first episode is on pages 31-39. The initial long speech of Oedipus would need breaking--probably by blocking, perhaps with variation in lighting, also. Certainly use of specific illumination to strengthen the composition of the stage picture would seem desirable. During the angered dialogue between Oedipus and Teiresias a warm hue would perhaps be desirable.

d). The first stasima, page 39, is the second choral ode. It would indicate a cooler hue than the prior scene of anger.

e). The second episode, pages 39-49, would probably indicate emphasis for the separate entrances of Oedipus, Creon, and Jocasta. The angered dialogue between Oedipus and Creon might again indicate a warm hue and/or an increased brilliance. After Jocasta's entrance the hue and/or brilliance might alter.

f). The second stasima is on pages 49-50. Again, variety during the choral ode would seem desirable.

g). The third episode is on pages 50-56. Jocasta's prayer should probably have some specific illumination; the religious nature of the prayer should undoubtedly be indicated by set, lights, props, or something. The separate entrances of the messenger and Oedipus would perhaps indicate changes in the lighting in accord with the way in which the entrances altered the play's mood.

h). The third stasima, page 56, would probably require variety of some sort.

j). The fourth episode, pages 56-59, is the climactic revelation and should probably be lighted accordingly.

k). The fourth stasima, page 59, would again indicate variety during the ode.

l). The fifth episode is on pages 59-68. The long message of the attendant should undoubtedly be given variety, perhaps by lighting. The entrance of the blind Oedipus should probably be pointed up by lighting, and his long speeches perhaps given variety by lighting. The separate entrances of Creon and the daughters, as well as the exit of Oedipus, should be emphasized--perhaps by lighting.

m). The fifth stasima, page 68, is the closing of the play and should be lighted accordingly.

n). The exodos, any action after the last stasima, would necessitate lighting effects in accord with the action and mood.

Director's requirements

From consulting with the director, the following was learned:

1. The approach would not attempt realism; the set design would be formalism-symbolism.

2. Cool colors would predominate; the general illumination should be capable of strong intensity.

3. Lighting should reflect the classicism of the play; however, audience analysis would indicate that the formal language and classical structure should be deemphasized somewhat. Simplicity should predominate.

4. The religious nature of the play should be deemphasized.

5. Entrances, exits, and the classical divisions could indicate general light changes.

6. The chorus would consist of twelve to sixteen men and women. They would serve as the Theban elders as well as the Theban citizens. Consequently, their initial entrance would come after the curtain, during music, and before the prologue. The priest would precede their entrance, and they would remain on the stage throughout the play. This factor modified the basic light changes by prefixing two steps: First, the curtain would require some lighting before opening; second, lighting variety would be necessary after the opening of the curtain, during the music and entrance of the priest and chorus. (The parados would be replaced by a stasima, but basic lighting for that point in the script would not be altered.)

7. The script would not be cut. The speech of the attendant would be broken and given to two women.

8. The entrance of the blind Oedipus should have the most startling and dramatic lighting.

9. There would be no exodos; a final curtain would fall after the final stasima.

10. There would be a curtain call. These two last considerations would suffix two additional steps to the basic lighting changes: First, the final curtain would require some type of lighting; second, the curtain call would require a given light change.

**Other technical
design requirements**

In *Oedipus Rex*, both the set and the costumes took superordinance over the lighting in time order of design and predominance of decisions.

Set design.--From the set design, the basic lighting took the following modifications:

1. There would be a sky to be lighted.

2. The altar would require specific illumination of some sort.

3. The palace doors would serve for the entrances of the royalty (including the blinded entrance of Oedipus) and would require specific illumination, probably of a strong intensity.

4. The numerous levels--columns, steps, platforms-- could aid light composition greatly in form revelation.

5. The maximum stage depth, width, and height would be used.

6. The colors of the set--blue-green, blue, blue-red, red-orange--would help determine lighting colors.

7. The style of the set design--formalism-symbolism--
would help indicate the style in the lighting design.

Costume design.--From the costume design the follow-
ing modifications were indicated:

1. Costume colors--set and costume colors were the
same--would help determine lighting colors.

2. The costume style--not realistic, but stylized--
would help indicate the lighting design style and mood.

Makeup design.--The makeup colors were coordinated with
set, costume, and lighting colors. However, the style--not
the classical use of masks; not realistic, but stylized make-
up--again reflected the play (including the lighting) mood.

Properties.--The props in the play would be few in
number and small in size. Their colors would be integrated
with the set, costumes, and lights. None of them appeared
to necessitate specific illumination.

Sound effects.--The opening music would be taped and
serve as the cue to open the curtain. (At a specific point
in the music as indicated by the reading on the tape, the
curtain would be opened.) The initial lighting effects
should roughly follow changes in the music. By timing the
lighting changes with the music (noting the readings on the
tape), all cues for opening the show--lighting, curtain, and
so on--could come from the sound effects technician.

Blocking requirements

1. The chorus was generally blocked on the altar unit and around the DS? and SC columns. General illumination plus some specific illumination on each of these three areas would serve to light the chorus.

2. Jocasta's prayer would require specific illumination at the altar--perhaps the same as that used for the chorus movement on the altar unit.

3. Royal entrances through the palace doors would require specific illumination.

4. The entrance of blinded Oedipus would require a special specific illumination.

5. The upstage area would not require strong general illumination.

Equipment requirements

Dimmers available.--A control board with sixteen resistence type dimmers, each capable of carrying 3000 watts at 110 volts, was available. For the relative flexibility of the dimmers see Table 10.

Instruments available.--The available budget made purchase of lighting instruments nearly prohibitive. Consequently, the stock on hand should (if at all possible) serve as the total available number of instruments. For the type, number, and condition of available instruments see Table 11.

Additional equipment available.--In addition to the
instruments, several hundred feet of stage cable, extra fuses,
and color media--glass roundels for the foots and rolling
striplights and a full stock of Cinabex--were available.

Money available.--The budget was minimal.

TABLE 10

AVAILABLE DIMMERS

No.[a]	Relative Flexibility
11 21 31	Permanently attached to three circuits in the foot-lights
24 25 26 27	Female outlets are permanently attached along the balcony rail--the beam light position
16	Outlets permanently attached to a 36 foot batten[b]
14 15	Outlets permanently attached to two circuits of the SR and SL wing pockets
12 13 22 23 32 33	Attached to cables which can be strung or run from SR wing to any position on the stage

[a]For dimmer numbering system see page 204.

[b]This batten must be concealed by flying it, ground
row, or otherwise.

TABLE 11

AVAILABLE INSTRUMENTS

Instrument type	No.	Condition	Lamps		
			No.	Watts	Condition
Beam projectors	3	Excellent	3	1500	New
Ellipsoidal spotlights	8	Excellent	8 8	500 500	New Old
General spots	4	Poor to fair	4	500	Old
Baby spots	20	Poor to fair	18	Varied	Old
Follow spots	1	Excellent	2 2	1500 1000	New and Old New and Old
Olivette floodlights	2	Good	2 2	1000 1000	New Old
12-lamp foot striplights	6	Fair to good	100	60-100	New and Old
6-lamp rolling or hanging striplights	3	Excellent	20	150	New
6-lamp hanging striplights	6	Fair to good	40	200	New and Old

Graphic recording of the lighting design

Producing the design

With the required information available, the light-
ing for Oedipus Rex was designed. The required information
indicated five essential lighting problems--general illumi-
nation, chorus illumination, palace door illumination, blind
entrance illumination, and sky illumination.

General illumination.--For general illumination, foots, borders, and beam lights were planned. The foots and borders would have primary red, green, and blue each on a separate circuit; by additive mixing, any hue of any saturation and of a medium or low brilliance could be produced.

Past experience indicated the following about the South Dakota State College permanent footlights. Sixty watt lamps in each of twenty-four red and twenty-four green foot lamp outlets would give adequate maximum light intensity from the red and green foots. Because primary blue transmits considerably less light than do the other two primaries, twelve 75 watt and twelve 100 watt lamps were placed alternately in the blue foot lamp outlets.

Past experience with the South Dakota State College stage indicated that to adequately cover the entire depth of the stage (including a rear drop) three rows of border lights are necessary; two rows will cover the stage area exclusive of a rear drop; one row downstage will light approximately two-thirds of the stage from the curtain line back. Blocking for Oedipus Rex made subdued lighting intensity upstage an important consideration; therefore, one downstage row of border lights (with the possible necessity for additional striplights for the sky) was decided upon. Three strip-lights with six lamps each can cover the entire South Dakota State College stage width fairly adequately; four units give good coverage. The 150 watt lamp units are somewhat limited

in intensity; the 200 watt lamp units are adequate for intensity for all three primary colors. Consequently, four striplights (each with six 200 watt lamps) were designed for placement on the farthest downstage batten.

Eight 4½" ellipsoidal spots (each with a 500 watt lamp and hung from the balcony rail) are frequently used in groups of four pairs to light four sections across the entire downstage width of the South Dakota State College stage. (Beam lights frequently aid specific illumination by being focused in pairs on one-third, one-fourth, one-sixth, or one-eighth of the stage area. Then by dimming in or out any combination of pairs of beam lights, high lights and shadows can be varied.) For _Oedipus Rex_ it was decided to use other instruments and other mountings for highlighting given areas and to use six beam lights—each focused on the entire downstage width in order to give a possible high intensity to the general illumination. Partially saturated hues of color media (three warmer hues directed from stage left, three cooler ones from stage right) would also help vary brilliance, saturation, and hue, as well as reveal form—a function of specific illumination.

Chorus Illumination.—A great deal of variety in lighting for the chorus was planned by use of changes in color and quantity from the striplights plus any combination of beam lights and specific illumination on the altar, SDR column, and SC column.

The altar unit was considered a more important specific illumination area than the two DS column areas; The altar unit was one of the two basic set units and had to balance the palace; it had symbolic significance, its religious use; and it had important uses for the priest and Jocasta as well as the ohorus. Consequently, a beam projector with its concentrated beam was used to light the alter unit; two olivette floodlights were used to give specific illumination to the DS column areas. The color media colors--unsaturated hues of lavender and two different blues--were chosen for several reasons: Three different colors would aid the composition of the stage picture; cool colors would aid the tragic mood; unsaturated colors would permit sufficient intensity and would not interfere with the function of the strips to alter basic hue; lavender and blue would enhance the colors of the set and costumes.

Plates VIII, X, and XII show planned chorus illumination; Plates IX, XI, and XIII show actual chorus illumination.

Palace door illumination.--A beam projector seemed desirable for lighting the palace doors, for it could produce the intensity when needed, the concentrated central beam could highlight the entering figures, and the less concentrated outer beam could cover the width of the palace unit. If used with the general illumination and/or DS olivettes, it could permit necessary three-dimensionalism. The angle of the beam which

would offer greatest visibility and fewest number of shadows on the actor's faces would require an instrument mounting some distance in front of and above the doors. The beam projector could certainly be of sufficient intensity if placed on the balcony rail, but the spill might cover the act teaser and/or proscenium arch. Actual trial of such an installation was necessary to ascertain that a beam projector could be used from the balcony rail to light the doors. A warmer color was planned both to point up the entrances and to pick up the colors of the royal costumes.

For additional variety and added three-dimensionalism, a side light from SL was planned. Again trial was necessary to indicate that a 4½" ellipsoidal could be focused from the SL fly gallery through the USC and SC columns and onto the palace doors. Another (but a different) warm hue was planned for this light, which could perhaps also serve for specific illumination for the chorus.

Plates XIV and XV indicate a possible palace door illumination and a similar illumination used during the show itself.

Blind entrance illumination.--Oedipus' blind entrance occurred through the palace doors, but required a different lighting effect.[52] Again, a beam projector was chosen for its concentrated beam and great intensity. If mounted above

[52]Above, p. 191.

the level downstage of the doors, it would cast unreal shadows
upon the face of the entering Oedipus. A red-purple hue was
planned to symbolically help emphasize the bloody act of
Oedipus' blinding and his regal status. A low intensity of
light on the chorus would help deemphasize them.

Plates XVI and XVII show the planned and performance
illumination for this action.

Sky illumination.--The sky would serve only as an un-
obtrusive, but integrated, background. Strong intensity
lighting of it would be undesirable because of the attention
it would attract to the background. But, on the other hand,
if the sky lacked adequate lighting, it would be a detracting
factor. The other lighting instrument would all have some
effect upon the sky, and only actual trial would indicate
what kind of effect. No definite specific illumination for
the sky was planned, but one ellipsoidal, seven stripe, one
follow spot, and all the general and baby spots, as well as
one dimmer, would be available if specific sky illumination
were found to be necessary or desirable.

It was planned to use the available dimmer board with-
out any additions or modifications. No reuse of a dimmer
for different instruments in different scenes was planned.
(Frequently this is necessary with the semi-permanent and
restricted dimmer control board in the State College Theatre.)
For the designed dimmer uses see Table 12.

TABLE 12

DESIGNED DIMMER USES[a]

No.	Instrument Attachment
11 21 31	Use the three permanent foot circuits for the foots.
24 25 26 27	Use three balcony rail outlets for three pairs of beam lights. Use one outlet for the palace door beam projector.
16	Fly the batten D8 and use for the DSR column light.
14 15	Use one SL circuit for the fly gallery mounting of the palace door ellipsoidal. Reserve the other circuit for possible specific sky illumination.
12 13 22 23 32 33	Use three cable outlets for the three borderlight circuits. Use the other three outlets for the SC olivette, the altar beam projector, and the blind entrance beam projector.

[a]Compare this table with Table 10 and Diagram 18.

The lighting design made use of only available instruments, other equipment, dimmer facilities, and the minimal budget. Its great simplicity--general illumination plus only six specific lighting units--was nevertheless suited to much variety in composition. And the design did serve (with necessary modifications[53]) as the final lighting design.

_____

[53]For the modifications required in the lighting design, note the final graphic recordings and the execution of the design.

The actual planning of the light design was done jointly with the lighting chairman of the backstage crew. It cannot be overstressed that the closer the cooperation is among all persons connected with a show, the better is the show because of increased number of good ideas, integration of all work, involvement of all workers, and general harmony of the production and workers.

Recording the design

In order to make the final graphic recording of the light design for Oedipus Rex more compact, a consistent set of symbols and abbreviations is used throughout the records.

Instrument labels.--The instrument label indicates the type of instrument by letter and the specific instrument by number.

Code for the type of instrument

F--floodlight
  o--olivette
S--spotlight
  e--ellipsoidal
  fs--follow spot
B--beam projector
ST--striplight
  f--footlights
  b--borderlights

Thus, Fo 2 is the second listed olivette floodlight, Se 7 is the seventh listed ellipsoidal spotlight, or STb 4 is the fourth unit of border striplights.

Instrument pictorial labels.

Olivette floodlight ▢

Ellipsoidal spotlight

Follow spotlight ②

Beam projector ⊙

Foot striplights ⫷○ ○ ○⫸

Border striplights ⫷| | | |⫸

Dimmer number.--Each dimmer number has two digits.
The first digit indicates the number of the bank of dimmers
and numbers the banks from top to bottom. The second digit
indicates the dimmer in a given bank and numbers dimmers from
left to right. Thus, 23 is the third dimmer from the left in
the second bank from the top; 31 is the first dimmer on the
left in the third bank from the top.

Abbreviations.--Primary red, primary green, and pri-
mary blue are listed as R, G, and B respectively.

Cinabex colors are indicated by "C" followed by the
Cinabex number and name.

Specific and general illumination are listed as sp.
ill. and gen. ill. respectively.

Lt. stands for light.

Instrument label	Instrument type	Number of lamps	Color
STf 1-6	Striplight	12 lamps in each of 6 units, or 72 lamps	24 each of R, O, and B glass roundels
STb 1-4	Btriplight	6 lamps in each of 4 units, or 24 lamps	8 each of C6 primary red C39 primary green C20 primary blue
Se 1-6	4½" Ellipsoidal	1 lamp in each of 6 units, or 6 lamps	Se 1, C51 gold tint Se 2, C54 pale rose Se 3, C54 pale rose Se 4, C36 pale lavender Se 5, C36 pale lavender Se 6, C54 pale rose
Se 7	4½" Ellipsoidal	1 lamp	C2 light amber
B 1	16" Beam projector	1 lamp	C54 pale rose, double thickness
B 2	16" Beam projector	1 lamp	C36 pale lavender, double thickness
B 3	16" Beam projector	1 lamp	C13 magenta and C36 pale lavender with 3" hole in center
Fo 1	18" Olivette	1 lamp	C40 light blue
Fo 2	18" Olivette	1 lamp	C18 middle blue double thickness
Sfs	Follow spot	1 lamp	C18 middle blue

[a]See Diagrams 19-22   [b]See Diagram 18

FOR OEDIPUS REX

Wattage	Purpose	Mounting[a]	Area covered[a]	Dimmer[b]
24 lamps of 60 watts ea. for the color R & G; for B, 12 lamps each of 75 & 100 watts	Gen. ill. from underneath	Permanent, in apron edge	Entire width of stage plus lower sky	11 21 31
24 lamps of 200 watts ea.	Gen. ill. from overhead	DS batten	Entire width of stage, CS & DS	12 22 32
6 lamps of 500 watts ea.	Gen. ill. beam lights	Balcony rail	Entire width of stage, CS & DS	24 25 27
500 watts	Sp. ill. esp. doors	SL fly gallery	Palace doors and CS & US from a SL angle	14
1500 watts	Sp. ill. doors	Balcony rail	Palace doors from a front angle	26
1500 watts	Sp. ill. chorus	SC on SC batten	Altar and sky	33
1500 watts	Sp. ill. blind lt.	SRC on 3/4 US batten	First 2 levels DS of the palace doors	13
1000 watts	Sp. ill. chorus	DSR on DS batten	Around DSR column	16
1000 watts	Sp. ill. chorus	SLC on SC batten	Around DSC column and sky	14
1500 watts	Sp. ill. blind lt.	Spot booth, rear balc, opposite SC	Followed Oedipus after blind entrance	None in spot booth

DIAGRAM 18

CONTROL BOARD DIMMER-INSTRUMENT CONNECTION[a]

Master Dimmer	#11 STf1-6 Green	#12 STbl-4 Green	#13 B 3	#14 Se 7	#15 not used	#16 Fo 1	
Master Dimmer	#21 STf1-6 Red	#22 STbl-4 Red	#23 Fo 2	#24 Se 1 Se 5	#25 Se 3 Se 6	#26 B 1	#27 Se 2 Se 4
Master Dimmer	#31 STf1-6 Blue	#32 STbl-4 Blue	#33 B 2	Code: Switch — Dimmer — Dimmer no. ⟶ #n Instrument label ⟶ Xx n			
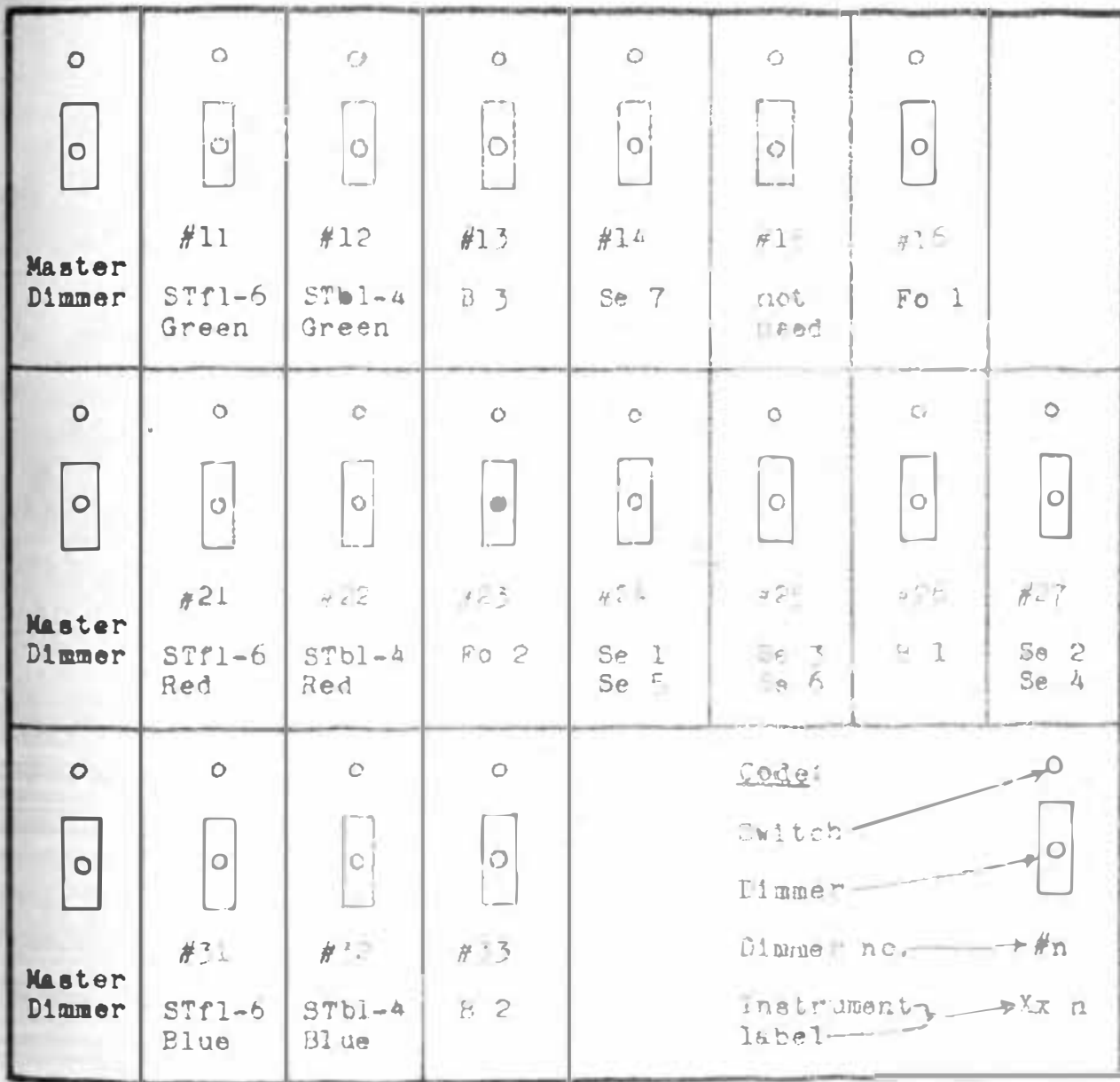
[a]follow spot controlled from spot booth; house lights controlled from separate dimmer and switch.

DIAGRAM 19

208

GENERAL ILLUMINATION INSTRUMENT MOUNTINGS

Piano

18'-0"

29'-0"

Scale: 1cm=5'.

70'-0"
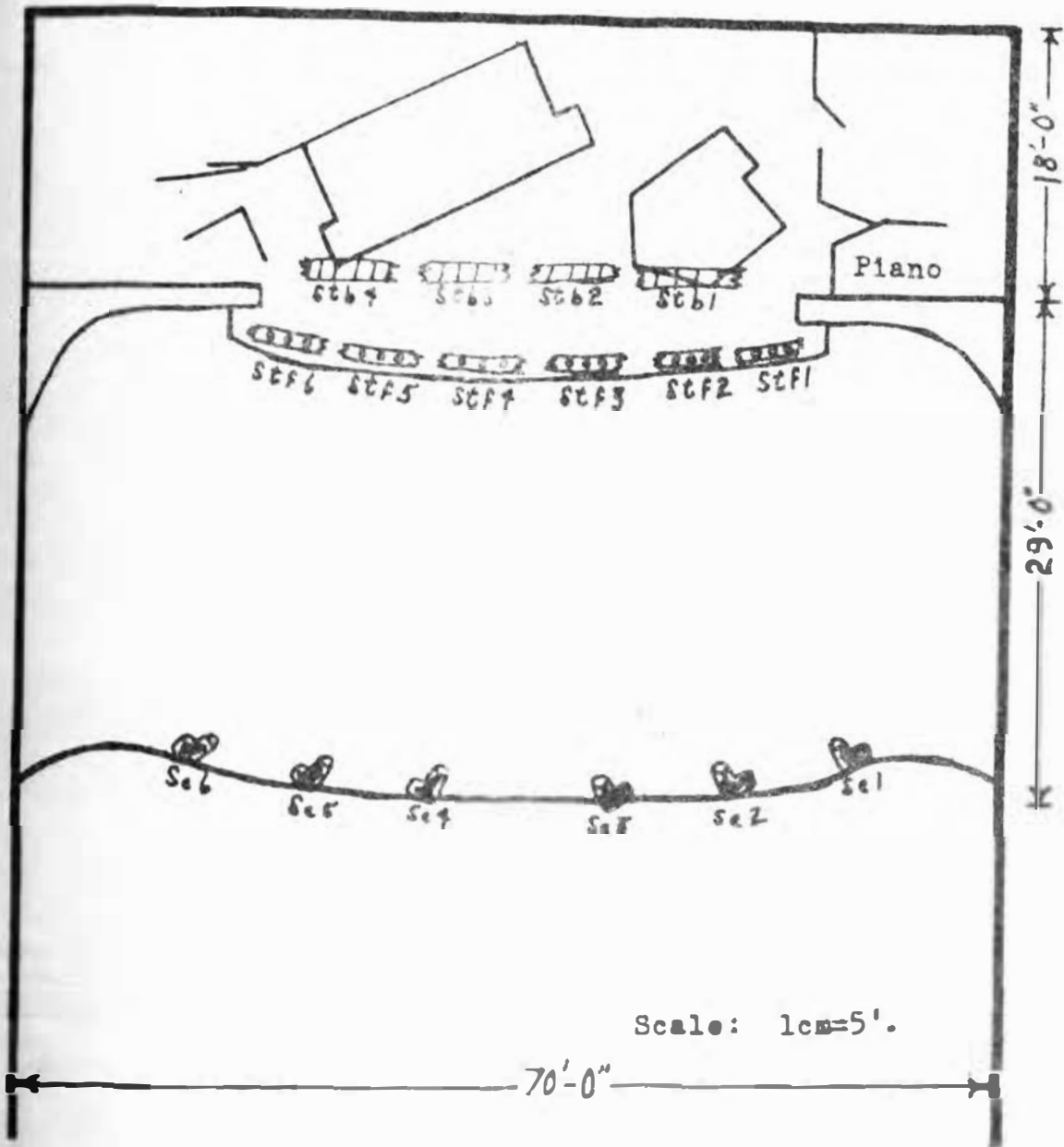
For the convenience of the technician, units of a
series are numbered from his left to his right. If the light-
ing control board is in the auditorium (the ideal location),
the units would be numbered from the audience left to right.
If the light control board is inadequately located backstage
(as it is in the South Dakota State College Theatre), the
units are numbered from 8L to SR as they are numbered here.

DIAGRAM 20   209

CHORUS INSTRUMENT MOUNTINGS
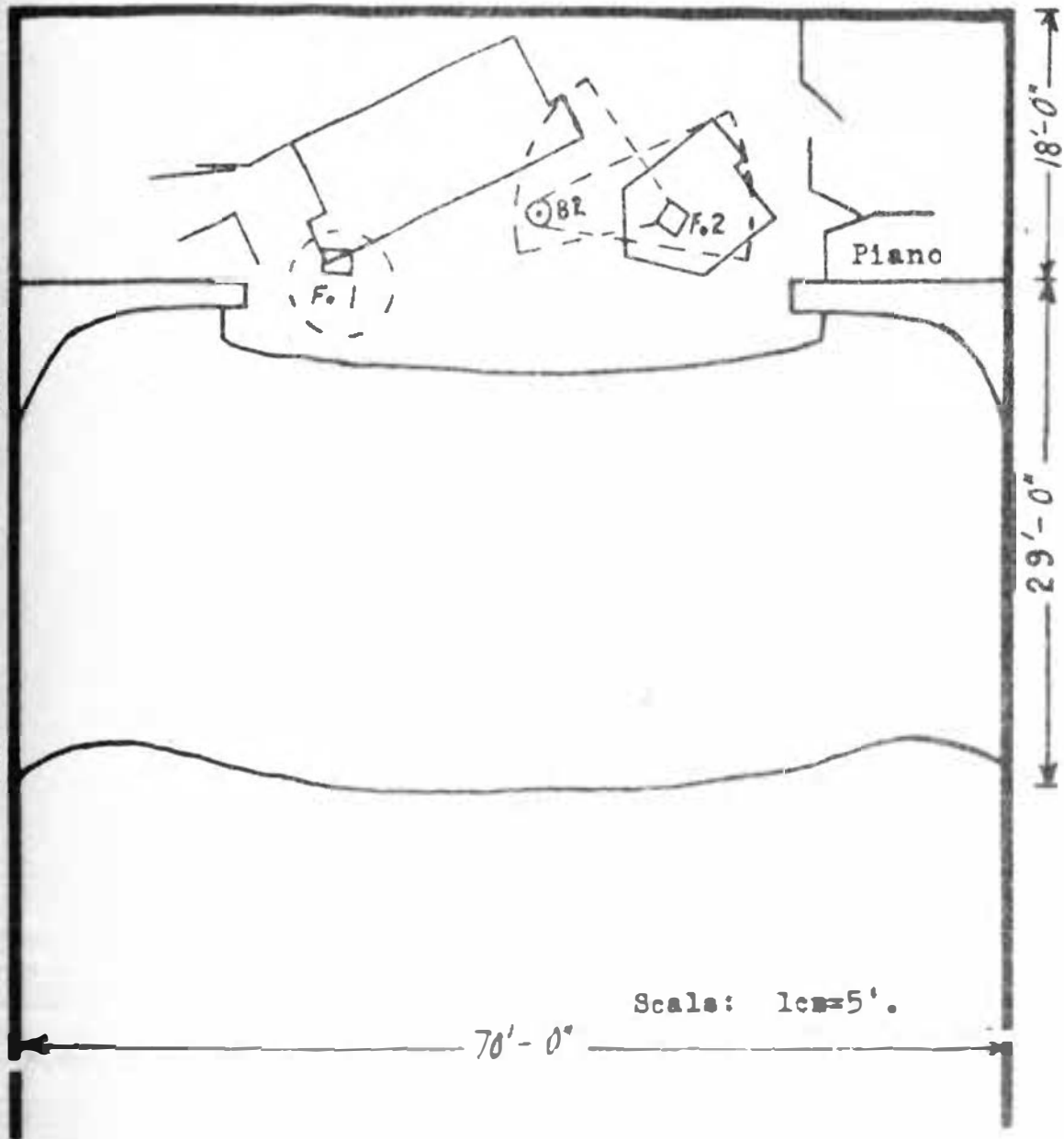
In addition, much of the lighting of the chorus was done by use of general illumination--particularly low intensity, strongly saturated primary hues from the foots and borders.

DIAGRAM 21   210

PALACE DOORS INSTRUMENT MOUNTINGS
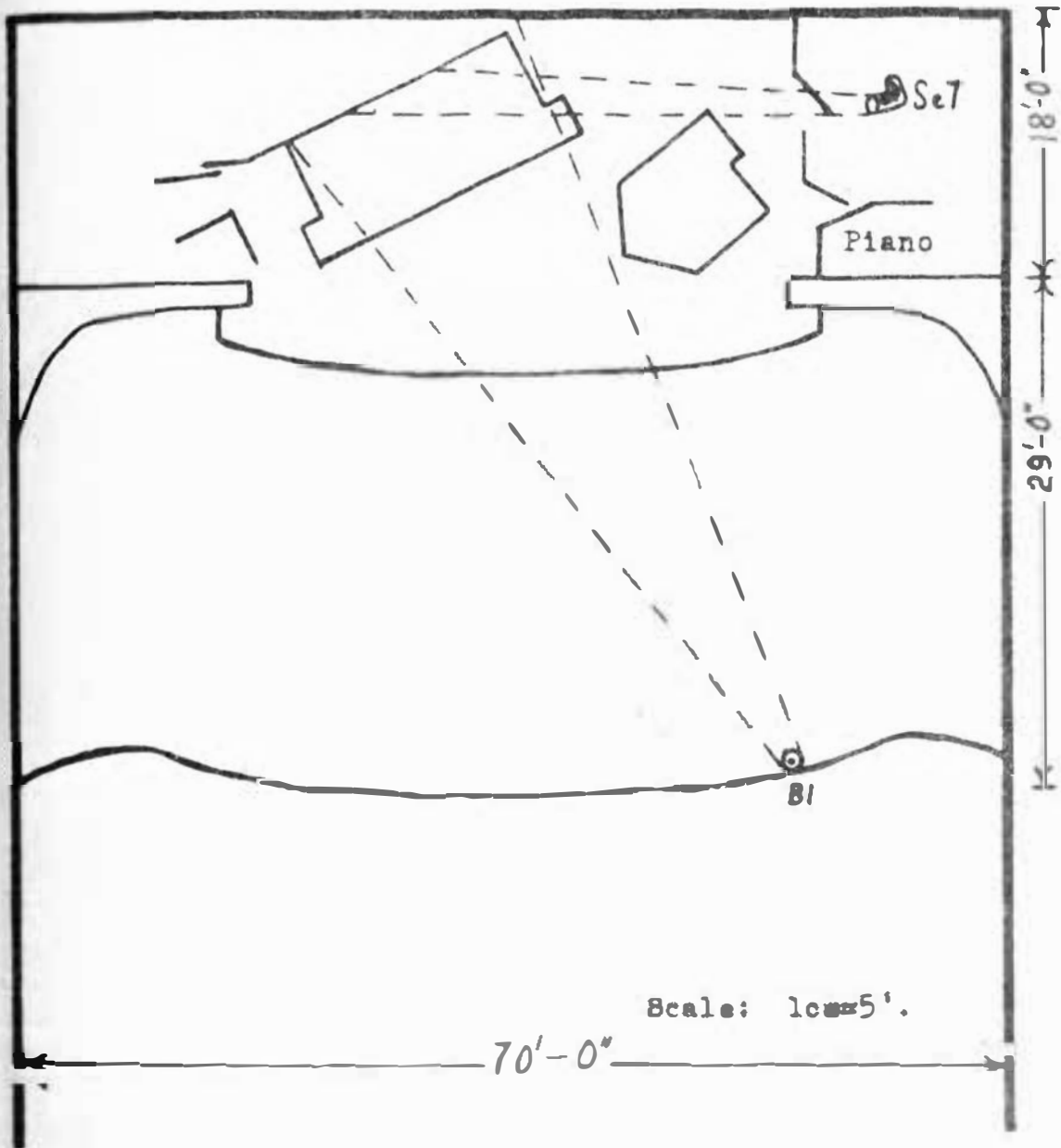
Se 7 also furnished specific illumination for
the chorus.

DIAGRAM 22   211

BLIND ENTRANCE INSTRUMENT MOUNTINGS
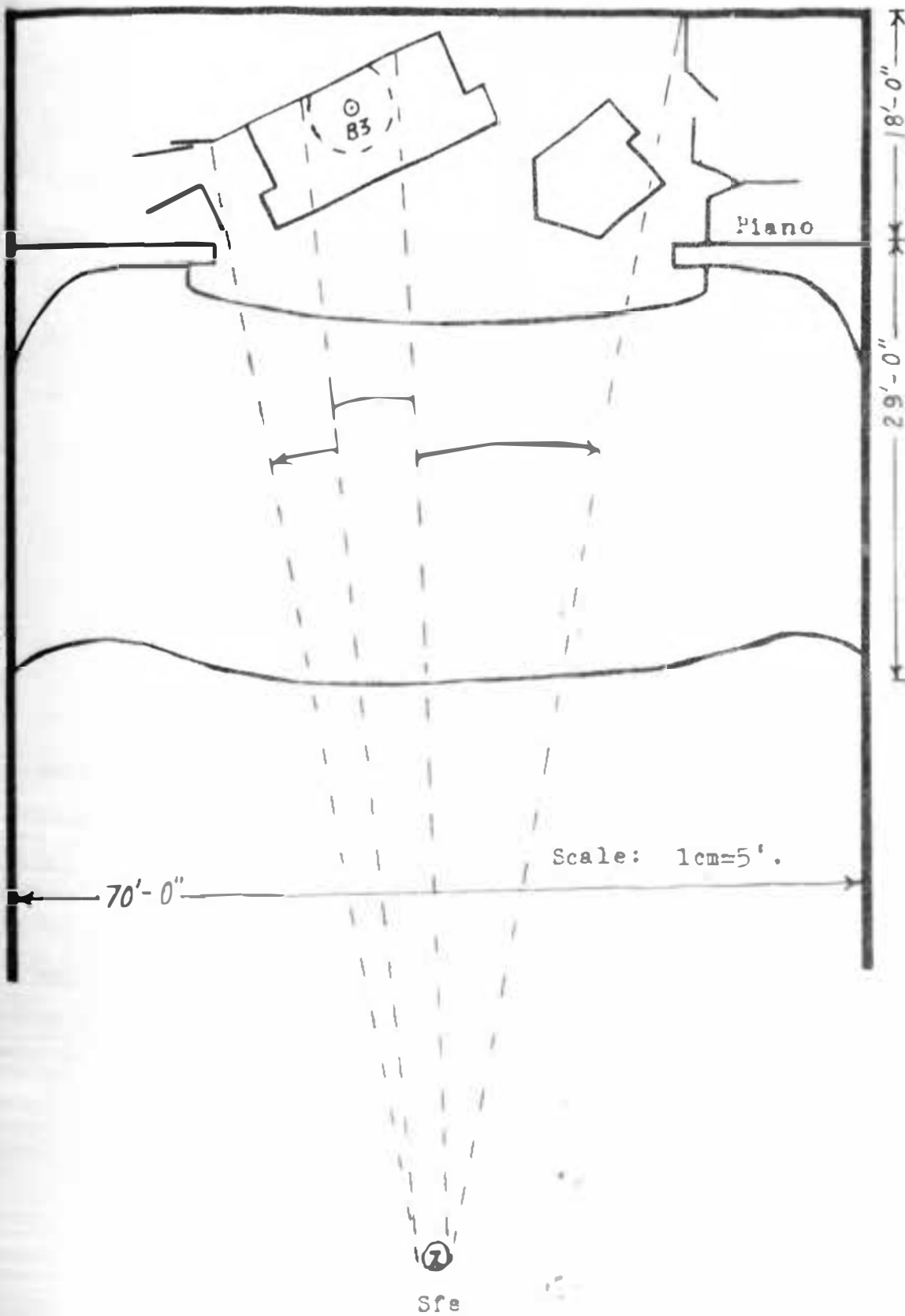
Explanation of Tables 14 and 15.--Each specific light-
ing change is set during the light rehearsal by coordination
with a point in the action of the play. That point of action
then becomes the cue action for the specific lightingchange.
The lighting cues for Oedipus Rex were taken by the light
chairman from the sound effects technician at the opening of
the show and directly from the script during the remainder
of the show. (Sometimes the cue is relayed to the light
technician(s) by the prompter or stage manager.)

Table 14 shows the correlation between the script or
music action and the cue number.

Table 15 shows the correlation between the cue and the
specific lighting for each change. Only changes in the dimmer
or switch readings are recorded. Light changes are usually
necessarily gradual; consequently, each cue flowed directly
into the next so that by the time the cue action was reached,
the lighting was at the reading indicated by that action's
cue number. Only the lighting for Oedipus' blind entrance
was purposely sufficiently rapid to be perceptible. The
dimmers are rated on a ten point scale; zero is dimmed
completely out, ten is dimmed completely in.

TABLE 14

FINAL LIGHTING CUES FOR OEDIPUS REX

Cue No.	Tape Reading or Page No.	General Action
1.	Begin tape	Audience begins to assemble
2.	7:58 p.m.; tape, 988	Foot illumination on the act curtain
3.	1035	Change in hue of foots
4.	1097	Change in hue of foots; house lights out
5.	1104	Curtain opens
6.	1139	SC chorus olivette brought in
7.	1180; end of music	DSR chorus olivette brought in
8.	p. 25	Priest enters USL
9.	p. 25	Chorus enters USL, CSL, DSR, CSR
10.	p. 25	Oedipus enters from the palace
11.	p. 26	During priest's speech
12.	p. 27	Before Creon's entrance DSR
13.	p. 30	First choral ode
14.	p. 31	Chorus' movement to the altar
15.	p. 31	Oedipus enters from the palace
16.	p. 34	Teiresias enters from USL
17.	p. 39	Second choral ode
18.	p. 39	Before Creon's entrance CSL
19.	p. 39	After Creon's entrance

TABLE 14--Continued

Cue No.	Tape Reading or Page No.	General Action
20.	p. 40	Oedipus enters from the palace
21.	p. 43	Jocasta enters from the palace
22.	p. 49	Jocasta and Oedipus exit into the palace
23.	p. 49	Third choral ode
24.	p. 50	Jocasta's prayer at the altar
25.	p. 50	Messenger enters DSR
26.	p. 56	Fourth choral ode
27.	p. 56	Before the shepherd enters USL
28.	p. 56	After the shepherd enters
29.	p. 59	Attendants enter from palace
30.	p. 61	Blind Oedipus enters from palace
31.	p. 62	As Oedipus speaks
32.	p. 62	As Oedipus moves down lower steps
33.	p. 65.	Creon enters DSL
34.	p. 68	After Oedipus exits DSR; final choral ode
35.	p. 68	As curtain closes
36.		Curtain call
37.		After the final curtain falls

FINAL DIMMER READINGS

Cue No.	House lights	General illumination					
		Foots			Borders		
		STf 1-6 #11, G	STf 1-6 #21, R	STf 1-6 #31, B	STb 1-4 #12, G	STb 1-4 #22, R	STb 1-4 #32, B
1.	10	on 0	on 0	on 0	on 0	on 0	on 0
2.			10				
3.		10					
4.	0	0	0	10			
5.							10
6.							
7.							
8.						3	
9.						5	
10.							
11.							
12.							
13.			5			10	
14.			10			0	0
15.			5				
16.			0			8	7
17.					7	0	
18.							

Note: Each instrument generally serves several
B 2, and Fo 1 provide most of the sky illumination.

FOR OEDIPUS REX

Beams	Palace doors		Chorus			Blind entrance	
	B 1 #26	So 7 #14	Fo 1 #16	Fo 2 #23	B 2 #33	B 3 #13	Sfe
So 1-6 #24, 25 & 27							
on 0	on 0	off	on 0	on 0	on 0	on 0	off
				4			
			5				
					4		
	5						
5		on 0					
		4					
	3	6			5		
1	0	0					
5	2½	5	2	10	0		
	0	0	3	0	2		
2			7	10	0		
0					5		

purposes; it is listed by its predominant purpose. STf 1-6,

TABLE 15--

Cue No.	House lights	General illumination					
		Foots			Borders		
		STf 1-6 #11, G	STf 1-6 #21, R	STf 1-6 #31, B	STb 1-4 #12, G	STb 1-4 #22, R	STb 1-4 #32, B
18.	0	0	0	10	7	0	7
19.							
20.							
21.							
22.							
23.					0		10
24.							
25.		6	6		6	6	
26.							
27.		5	0			0	
28.							
29.		0	5		0		
30.			0				
31.					6		
32.							
33.						6	3
34.							
35.			10	0			
36.				10			7
37.	10			0			

Beams	Palace doors		Chorus			Blind entrance	
Se 1-6 /24, 25 & 27	B 1 #26	Se 7 #14	Fo 1 #16	Fo 2 #23	B 2 #33	B 3 /13	Sfs
0	0	0	7	10	5	on 0	off
2					0		
	4	4					
	7						
	2½						
0	0						
		2			8		
5	5				5		
		9					
4	4				4		
		2		0			
	2	5			0		
0	0	0				10	
						5	on
						0	
2½			5	7			
0				2½			off
5	5						
0	0						

Explanation of Plates VIII through XVII.--The even numbered plates are photographs of planned basic light readings; the odd numbered plates are photographs of similar readings used during the show. Plates VIII through XIII concern chorus illumination; Plates XIV and XV concern palace door illumination; Plates XVI and XVII concern the blind entrance.

Chorus illumination was planned to use foot and borderlight general illumination plus any combination of beam lights, DSR and SC olivettes, altar beam projector, and possible other instruments.

Plate VIII shows one possible chorus lighting with one primary color in foots and borders full and the SC olivette at a reading of four. (This exact light setting was used for cue 6.)

Plate IX shows the same basic light pattern as Plate VIII with slight readings (½ to 3) for beam lights, palace door beam projector and ellipsoidal, DSR olivette, and altar beam projector. This photograph was taken midway between cues 13 and 14. (Length of time exposure accounts for the apparent greater quantity of light in Plate VIII.)

Plate X shows a second possible chorus lighting using foots, borders, DSR olivette, and altar beam projector.

Plate XI shows cue 23 using such a pattern with one addition, the palace door ellipsoidal from SL.

Plate XII shows a third possible chorus illumination of foots, borders, DSR and SC olivettes, altar beam projector, and palace door ellipsoidal.

Plate XIII shows the same combination (with a slightly increased reading for the SC olivette and altar beam projector) during the show, cue 24.

Plate XIV shows a generally planned illumination for entrances through the palace doors--general illumination, some toning from the olivettes, and use of the palace door beam projector and ellipsoidal.

Plate XV shows cue 15, the same combination with a reduced dimmer reading for the palace beam projector.

Plate XVI shows the planned lighting for the blind entrance--blue foots and borders full and blind beam projector full.

Plate XVII is cue 30, the same reading with the addition of the D&H olivette. The great contrast between the brilliant beam projector and the general illumination cannot be photographically reproduced with accuracy, for the photographic film is not sufficiently sensitive to record the differences the eye can note. In taking these last two photographs, the general illumination required a lengthy time exposure before the beam projector was turned on. This accounts for the apparent difference in general illumination of the photographs.

PLATE VIII

One planned illumination for the chorus.
Actually used for cue 6.
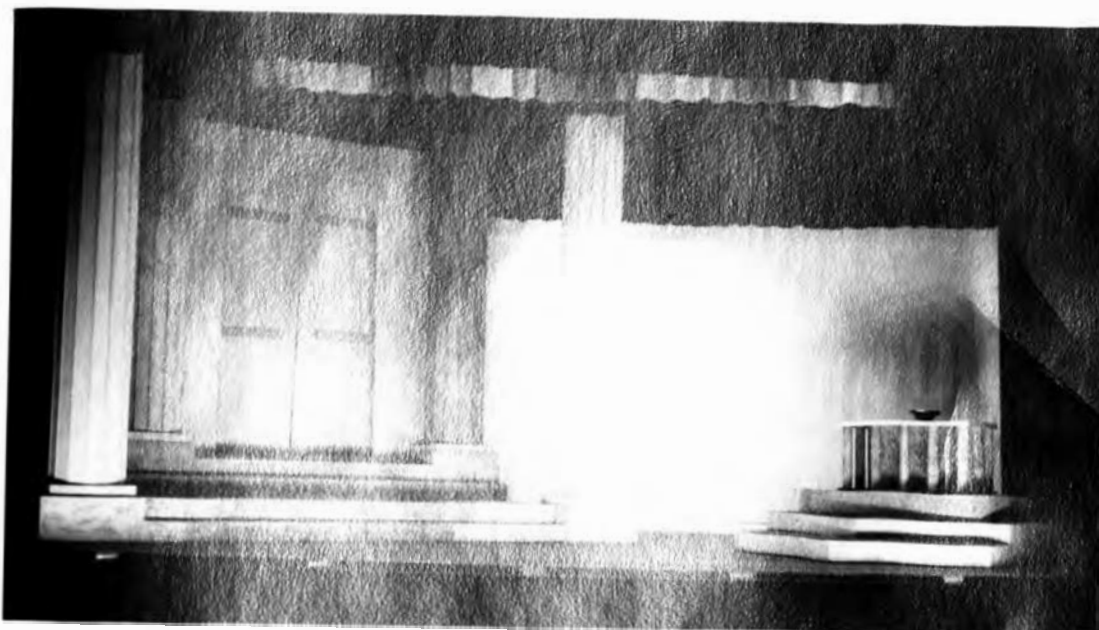
PLATE IX

Same reading with slight toning from other
instruments. Used midway between cues 13 and 14.
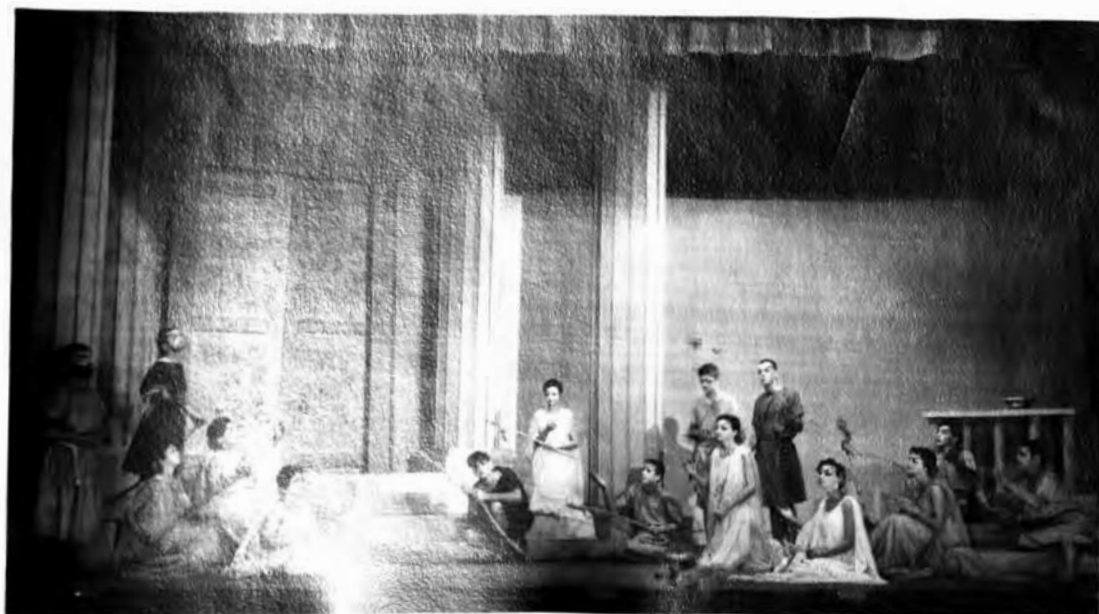
PLATE X

A second planned illumination for the chorus.
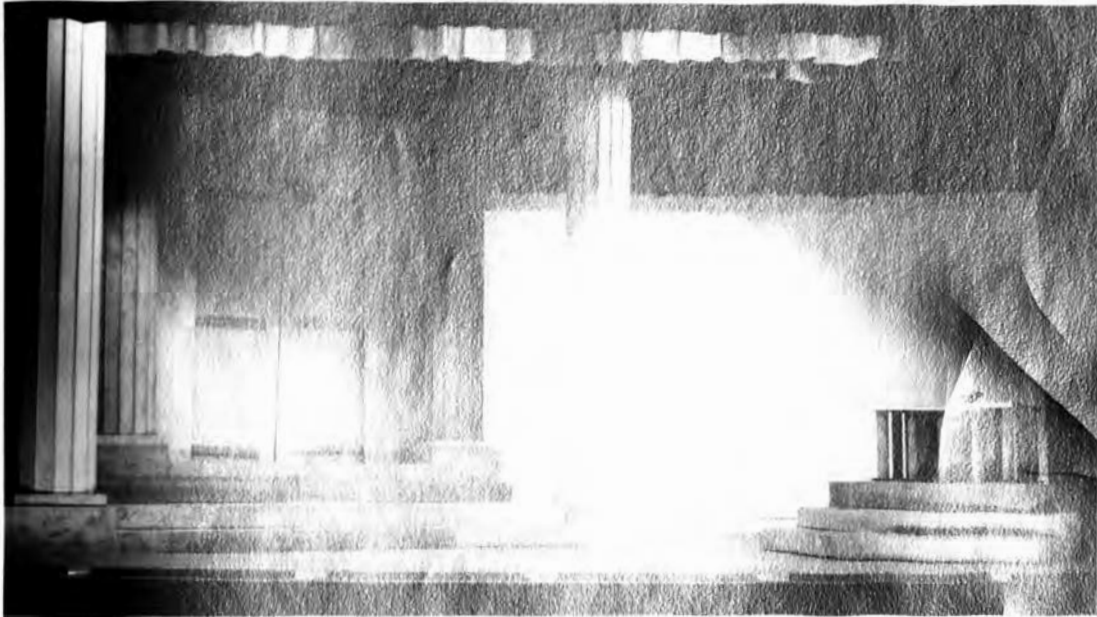
PLATE XI

The same reading with one additional instrument.
Used for cue 23.

PLATE XII

A third planned illumination for the chorus.
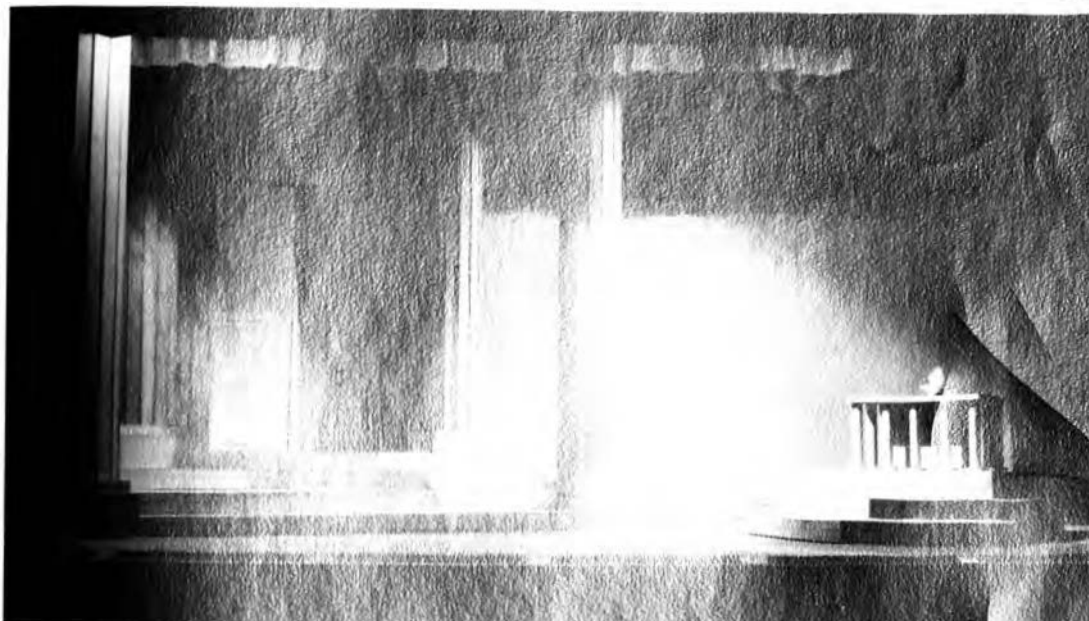
PLATE XIII

The same pattern with increased quantity from
two instruments. Used for cue 24.
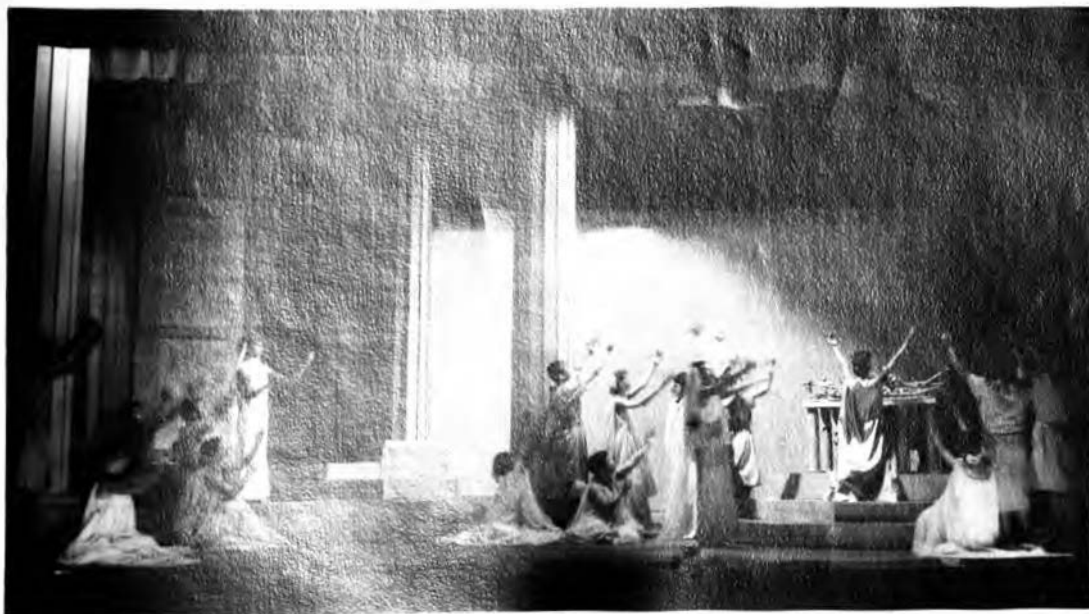
PLATE XIV

A planned illumination for the palace doors.
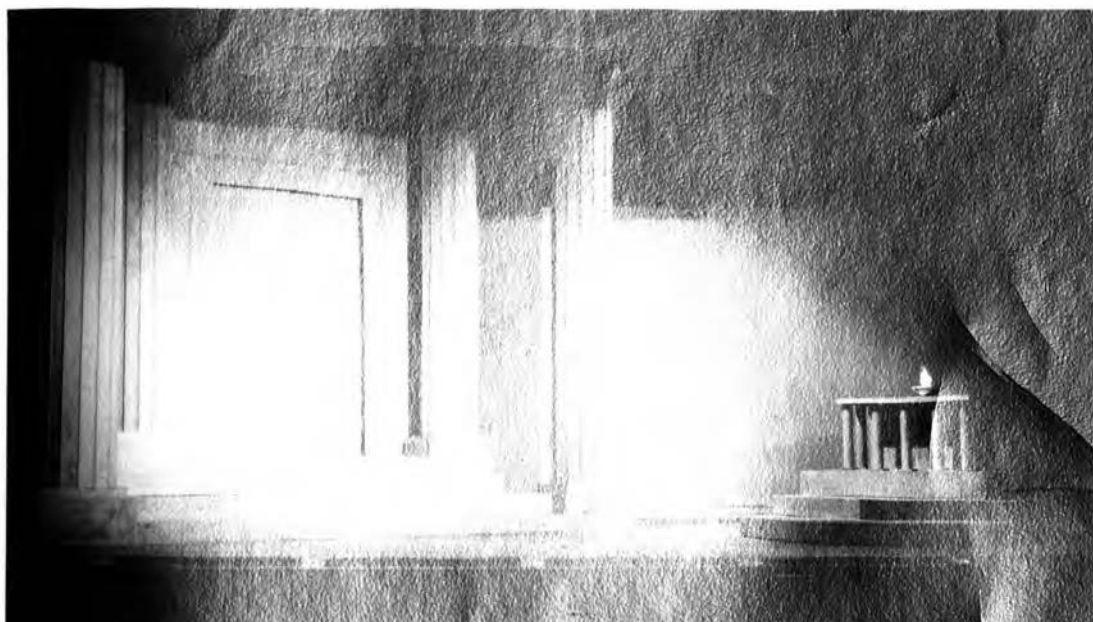
PLATE XV

The same pattern with a reduced dimmer reading
for the palace beam projector. Cue 15.

PLATE XVI

Planned illumination for the entrance of
blinded Oedipus.
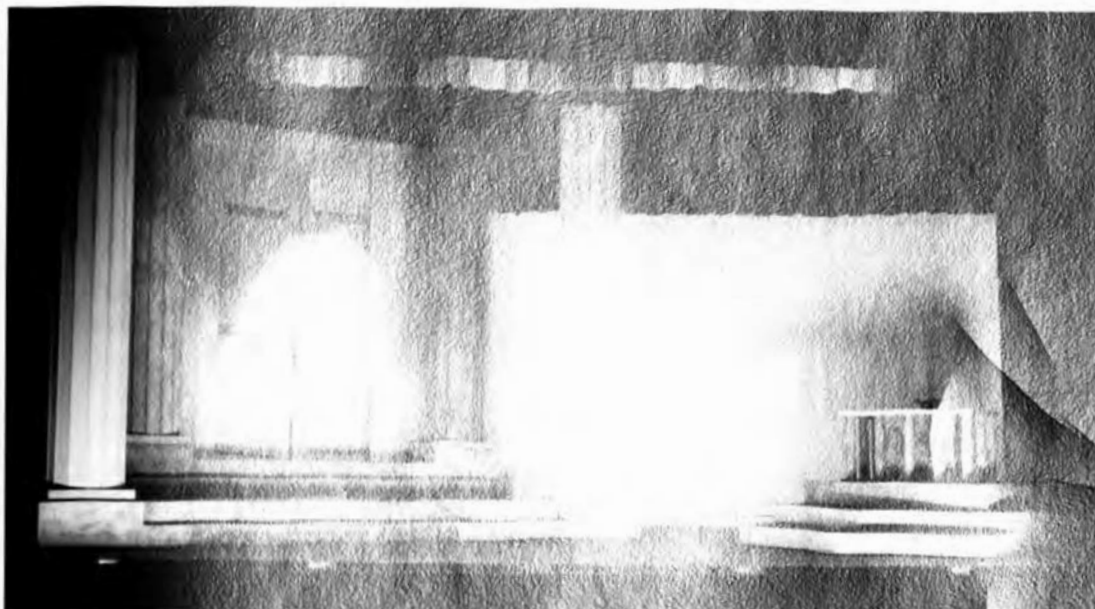
PLATE XVII

The same reading with one additional instru-
ment.   Cue 30.

Execution of the light design

Installing the equipment

Utilization of equipment available in the South Dakota
State College drama department omitted the possibility of equip-
ment delay that might arise from orders, back orders, or rented
units. However, installation of the equipment had to be de-
layed until May 16 and 17, two days before lighting rehearsal,
for the stage and light equipment were being used for numerous
shows up through May 14. On May 15 set considerations predom-
inated.

So, on May 16, the six ellipsoidal beam lights, the
palace beam projector and ellipsoidal, and the blind beam
projector were installed. Since the technical work was done
by State College students and staff, most of whom have heavy
daytime schedules, the installing of this equipment on May 16
occurred during the evening rehearsal and was limited to units
mounted off stage. The blind entrance beam projector, mounted
on stage, was installed during a break in the rehearsal.

The remainder of the lights were installed on the 17th.
After the lights were installed, several lighting combinations
were tried in an effort to determine what type of lighting
should be used on the sky. Illumination from the foots and
spill from the SC olivette and altar beam projector made pos-
sible numerous light changes on the sky. So no specific illu-
mination for the sky was planned unless lighting rehearsal should
indicate such a need.

After installation, it was obvious that all instruments would dim completely out with the exception of the palace ellipsoidal mounted in the fly gallery. (Resistance type dimmers will not dim lamps out completely if the load is insufficient.) Additional resistance could have been added to the line, but the slight intensity of the lamp at a dimmer reading of zero made additional resistance unnecessary.

During the course of lighting combination trials, the Cinabex in the blind beam projector melted in the central area of the strongest beam concentration. The effect created by the central hole seemed to add to rather than detract from the effect; therefore, the Cinabex was not changed.

Mounting rehearsals

Although the rehearsal on May 18 was primarily devoted to the actors' adjustment to set, some tentative lighting effects as coordinated with some tentative cues were planned. Prior to rehearsal time, the light chairman and technical director decided upon some general illumination patterns—see Plates VIII, X, XII, XIV, and XVI. These changes were then roughly coordinated with the classical divisions of the script as listed on pages 188 to 190.

During the rehearsal on the 18th, the dimmer readings were tentatively set for the show. The light board at State College is in the right wing; the operator stands turned three-fourths away from the stage, and masking of the wings usually requires nearly entirely blocking his view of the stage. As

a consequence, the lights were set by communication from the technical director at the house phone to the light chairman (who operated the control board) at the control board phone. The light chairman would, when time permitted, come out front to see the specific effect and to coordinate her ideas with those of the technical director. This system of setting lights is most inadequate, especially from the standpoint of the control board operator. And operating lights from such a position is equally disadvantageous.[54]

The predominantly overhead lighting for the blind entrance did not give sufficient light to Oedipus' face, so the follow spot was added to follow him after his last entrance.

During lighting rehearsal, the light changes and cues are set, one hopes permanently. This means that a scene must be repeated until the light change is determined and can be accurately performed. As a consequence, a lighting rehearsal can become extremely long, particularly if the technicians are inexperienced, the plot is complex, and/or prior trial of some lighting has been limited.

The lighting rehearsal for Oedipus Rex on May 19 went well with few repetitions. The basic lighting changes to be made before the costume and makeup rehearsal the next evening were five in number: (1) Correct the spill that one border lamp was casting on the first teaser. (2) Make the edge and

_____

[54]Above, p. 168.

movement of the follow spot more subtle. (3) Dim the blind
beam projector out sooner. (4) Increase general illumination
during the scene with the shepherd. (5) In general, make the
changes more slowly, one flowing directly into the next.

During the mounting rehearsal of May 20, the costumes
and makeup were added. The color of the follow spot Cinabex
washed out the effect of blood around Oedipus' eyes and had
to be changed to a medium blue. The light intensity for the
curtain call was also altered--decreased.

Dress rehearsal

After the dress rehearsal, all Cinabex were checked to
insure that they were not in danger of melting, fading, curling
out of the frame and creating spill, and so on. (The hole in
the blind beam projector had been retained.) Additional al-
terations in lighting were not needed for the performances;
however, it was necessary on opening night to correct an al-
teration made in the follow spot adjustment by the Memorial
Day assembly crew.[55]

---

[55]Above, p. 98.

CHAPTER VII

DESIGNING AND EXECUTING THE MAKEUP

TABLE OF CONTENTS FOR CHAPTER VII

Part 1.   General Considerations in Makeup

BODY FOR CHAPTER VII

General Considerations in Makeup

The purposes of makeup--general and specific

General purpose

Definition.--The general purpose of makeup is the same as that for all technical areas--to enhance in the best possible way the expression of the play.[1]

Achievement.--In order to accomplish its general purpose, makeup must be coordinated with the production in style and mood. The audience, however, generally expects a definitely realistic appearance in makeup except for characters from fantasy or for characters in clearly stylized plays. Consequently, the real art in makeup often becomes concealment of the art.[2]

Specific purpose

Definition.--Makeup shares with costuming the specific purpose of helping each actor portray his role.[3] Proper makeup design takes into account the actor himself as well as the role he is acting.

-----

[1] Bowman, p. 155. Gassner, pp. 118, 120. Heffner, p. 428.

[2] Corson, pp. 2, 174-82. Dolman, pp. 297-98.

[3] Gassner, pp. 119, 393-95. Heffner, pp. 419-20, 428.

Achievement.--Makeup should be coordinated with the
actor as a person.[4] The facial (and other bodily) bone and
muscle structure, control, and use differ in each person.
Makeup should be used to conceal or alter an actor's bone
or muscle structure not in keeping with the character. But,
equally important, makeup should emphasize the muscles and
bones of the actor which give strength and clarity to his
characterization. Makeup is applied to a living mobile face
and body and must utilize the lines and movements of that
face and body.

Makeup should be coordinated with the actor's role.[5]
Frequently makeup is discussed as being straight (makeup
applied to correct the actor's own skin tone and to make
him more attractive) or character (makeup used to completely
change the actor's appearance).[6] Following is an explanation
of why the use of straight makeup would seem to be a deterent
to the characterization of any role:[7] Just as each person is
different from any other person in the world, so every dramatic
character should be unique. Such uniqueness can only be

_____

[4]Corson, pp. 99-106.

[5]Corson, pp. 99-106, 60-75. Dolman, p. 378.
Gassner, pp. 381-82. Heffner, pp. 426, 430, 432-33.

[6]Dolman, p. 377. Gassner, pp. 379-80. Heffner,
pp. 449-50. Max Factor's Hints on the Art of Make-up
(9 booklets; Hollywood, California: Max Factor Make-
up Studio, 1952), No. 1-9.

[7]Corson, pp. 60, 72.

achieved by thorough understanding of the character derived from knowledge of the factors in his life which have contributed to his present physical appearance. Seldom would glorifying the actor's exact features be a true indication of the character's present physical appearance; instead, the character's sex, heredity, environment, temperament, health, and age would have to be studied to give an accurate answer.[8]

Generally speaking, men play men and women play women in the theatre today, so there is little necessity for concern by the makeup artist about a character's sex.

Heredity is responsible for the basic characteristics of bodily bone and muscle structure. In each individual there is similarity of bodily structure (especially to other members of his race), but there are also unique differences. Expressive hereditary features easily subject to unique alteration by the makeup artist are eyebrows and nose.

All of the external factors which exert an influence on man are referred to as his environment. Environment would include (1) general geographic area--tropical, frigid, or temperate climate; terrain; flora; fauna; (2) vocational and avocational conditions--in or out of doors, social status, economic status; and (3) cultural conditions--mores, institutions, philosophies. Modification in makeup of skin color,

---

[8]As footnote 5.

hair style, and street makeup are some of the easiest ways of indicating environmental influences on character.

Personality (temperament plus character)[9] will change inherent physical appearance both intrinsically (habitual expressions bring about muscular changes) and superficially (some character might bleach her hair, use green eye shadow, and so on).

The state of a person's health and his age both obviously shape his appearance.

Three variables of makeup

Makeup modeling

General principles in modeling.--Understanding modeling in makeup requires understanding the patterns of light and shade which attend three-dimensional objects. One can tell the difference in a rectangular and a cylindrical object held at a distance even if their ends are concealed; the sudden change in surface direction of the rectangular object creates a hard edge against its background; the gradually changing cylindrical surface creates a soft edge against its background. In short, "wherever there is a lowlight, or shadow, there is a corresponding highlight.

---

[9]Erich Fromm, Man for Himself (New York: Rinehart and Company, Incorporated, 1947), pp. 50-117.

When the surface changes direction abruptly, the shadow and highlight are immediately adjacent; but when the surface changes direction gradually, shadow and highlight are separated by a gradation of intermediate shades."[10] Modeling in makeup takes into account the bodily surfaces, their change in direction, and their corresponding highlights and lowlights.

Bodily areas in modeling.--The most important area for makeup is the face.[11] The five basic facial areas-- forehead, eyes, nose, cheeks, and mouth and chin--all have numerous planes that can be modeled in an infinite number of patterns. Analysis of the character's physical appearance as determined by his sex, heredity, environment, personality, health, and age; careful study of the actor's own face; and knowledge of the principles governing highlights and low- lights are all necessary requirements for designing the best possible facial makeup.

Like requirements are necessary in making up any other part of the body which is exposed.[12] Hands, one of the most expressive parts of the body, are subject to unlimited variety

[10]Corson, p. 9. See also: Corson, pp. 2-9. Dolman, p. 380. Gassner, pp. 382-83. Max Factor, No. 1-9.

[11]Corson, pp. 99-106, 108-128. Gassner, pp. 382-85. Heffner, p. 449. Max Factor, No. 1-9.

[12]Corson, pp. 128-30, 155-72. Gassner, p. 384. Heffner, pp. 449-50.

in modeling. Neck, teeth, hair, as well as any other bodily
part can also help denote character.

Color and plastics in modeling.--Generally the high-
lights and lowlights of modeling are achieved by color--
higher intensities for highlighting and lower intensities
for lowlighting.[13]

If more gross alterations are required, plastics can
be applied--to the nose, chin, cheeks, eyelids, neck, hands--
to build up and reshape the basic bodily structure.[14]

Makeup color

Characteristics of color.--Pigment color has three
characteristics--hue; saturation, or intensity; and value.[15]

Hue refers to the redness, blueness, greenness,
yellowness of a color.

Saturation, or intensity, refers to the purity of a
color, the amount of complementary hue or gray it has in
its composition.

Value refers to the lightness or darkness of a color,
the amount of white or black it has mixed with it. A color

[13]Corson, pp. 108-30. Dolman, p. 380. Gassner,
pp. 382-83.

[14]Corson, pp. 134-54. Dolman, p. 379. Gassner,
p. 385.

[15]Corson, pp. 12-15. Heffner, pp. 295-99.

of high value (pink, pale blue) is called a tint; a color
of low value (blue-black) is called a shade.

Classification of color.--Each color can be clas-
sified with a relatively high degree of accuracy by codi-
fying its hue, saturation, and value; however, manufac-
turers of makeup do not do this. Furthermore, the numbers
and labels of any manufacturer are neither self consistent
nor consistent with any other manufacturer's numbers and
labels. Nor is there a consistency among theatre people
about color designation for makeup, costumes, paint pigment,
and/or color media. Consequently, it is easiest for the
makeup artist to use a systematized pattern of color desig-
nation (according to hue, saturation, and value) for all
makeup.[16] One such system has been formulated by Richard
Corson.[17]

Choice of color.--The most important color choice in
makeup is that for the base; accurate selection can come
only after character analysis. One or two related colors
of higher value for highlights and one or two related colors
of lower value for lowlights are necessary. Character
analysis may also indicate necessity for rouge, eye shadow,
or any number of other makeup materials.

---

[16]Corson, pp. 16-24. Gassner, p. 382.

[17]Corson, pp. 16-17.

Color must be coordinated not only with character,[18] but also with lighting and costumes. Any pigment color is selective in the light rays it will reflect and/or absorb; consequently, the color of stage lighting can greatly alter the appearance of makeup.[19] Generally speaking, saturated light colors have the greatest effect upon makeup, a given color of light falling upon a similar color of pigment enhances the pigment, and a given color of light falling on a complementary color grays or blackens it. It is most useful to try makeup under the stage lighting which will be used for it. Colored lights or color media for the lights in the makeup room are also an asset.

Costume colors are affected in the same general way as makeup colors. Consequently, integrated selection of lighting, costume, and makeup colors is essential.[20] Costumes affect most directly the choice of eye shadow color, especially for women; analagoue or the same colors for both costume and eyeshadow are frequently recommendable.

---

[18]Corson, pp. 76-85, 108-30. Colman, pp. 378-79. Gassner, pp. 379-82, 389. Heffner, p. 430.

[19]Bowman, p. 150. Corson, pp. 26-32. Gassner, pp. 379, 388. Heffner, pp. 419, 432.

[20]Corson, p. 1. Heffner, pp. 419, 427. See also above, pp. 140, 175.

Makeup application

The most important advice for makeup application is to do it.[21] Only actually working with the various kinds of makeup in various combinations can tell anyone what the effect will be. The various types of application include greasepaint, greaseless, and varying combinations of both.

Greasepaint application.[22]--The general application procedure for greasepaint is to cleanse the face with cold cream; apply grease base sparingly; add eye makeup, rouge, and other modeling materials; powder; and add lines. Grease base has the advantage of more thorough coverage and easier blending with the grease modeling materials. Its disadvantages include messiness in application, serious soiling of clothing, difficulty of removal necessary powder application, and difficulty in touching up.

Greaseless application.[23]--Greaseless makeup may be either cake or liquid base. It has the advantages of being less messy, more easily applied and removed, easily touched up, and used without powder. Its disadvantages

---

[21]Dolman, p. 380. Gassner, p. 389.

[22]Corson, pp. 87, 89, 92. Dolman, pp. 377-78. Gassner, pp. 382-85. Heffner, p. 449. Max Factor, No. 1-9.

[23]Corson, pp. 92, 95. Dolman, pp. 377-78.

include less coverability than greasepaint and frequent
necessity to use it with grease modeling materials because
of the limited supply of colors and kinds of greaseless
modeling materials.

Combination application.[24]--Combination applications
occur if greaseless base is used with grease or grease and
greaseless modeling materials. The grease modeling colors
may be applied over, under, or both over and under the
greaseless base. Powdering is necessary if grease model-
ing materials are used over the greaseless base.

Producing a makeup design

Information required for a makeup design

Basic requirements.--With a knowledge of how to
vary modeling, color, and application in accordance with
the purpose of makeup, the makeup artist is prepared to
produce a makeup design.

Script requirements.--From the script, the makeup
artist will learn the apparent mood of the play, histori-
cal setting, number and basic nature of the characters,
and changes in characters that might require makeup
alterations.

---

[24]Corson, pp. 92-95.

Director's requirements.--From the director, the apparent requirements of the script can be verified and additional makeup considerations can be learned. The director determines the specific mood and style of the play (with which makeup must be coordinated); any script modifications in setting, number of characters, and so on; and possible other specific makeup requirements.

Other technical design requirements.[25]--The makeup must reflect the mood and style of the total technical production. It must be especially integrated with lighting and costuming colors; the color media of a lighting design occasionally must be modified because of their effect upon makeup colors. Distance from the audience directly affects the strength of highlights, lowlights, and lines.

Equipment requirements.[26]--Applying makeup requires a place to do the applying and the materials to apply. A makeup room needs lights, mirrors, and tables for the materials. Sinks, colored lights or color media for the lights, good ventilation, plenty of room, and other features are added assets.

---

[25]Dolman, pp. 376-77. Gassner, p. 388-89. Heffner, p. 429.

[26]Coreon, pp. 34-59, 186. Dolman, pp. 377-80. Gassner, pp. 380-81. Heffner, pp. 434, 439-40, 453.

The materials needed depend upon the makeup design. There are scores of makeup materials, and any article not generally associated with makeup may be utilized (limited only by human ingenuity) to produce part of a given makeup design.

Materials utilized may also be dependent upon the budget if the organization does the purchasing. However, the actor may purchase his own makeup materials.

A makeup morgue of photographs, drawings, sketches, caricatures, cartoons, and paintings of people is an invaluable aid in determining the modeling for makeup design.

Makeup worksheets should be used if making up is done under supervision.

Graphic recording of a makeup design

The makeup design should be recorded on a makeup plot which indicates each character and a makeup description for him for each scene in which he has a makeup alteration;[27] the makeup description includes the modeling, color, and application of all makeup materials. Occasionally sketches, diagrams, and/or plates are also a part of the makeup recording.

---

[27]Heffner, pp. 440-41.

If makeup is under supervision, there should be a makeup worksheet (on which the makeup is clearly described) for each actor. One makeup worksheet, which includes pictoral representation of the five facial areas and their modeling and coloring--is especially lucid and useful.[28]

Execution of a makeup design

Method of execution.--Makeup may be applied by a makeup artist, by a makeup staff under the supervision of a makeup artist, by the actors themselves under the supervision of a makeup artist, or by unsupervised actors.[29]

The application of makeup by a makeup artist insures quality makeup. If a makeup artist is engaged from outside the organization, it is costly and frequently the artist is less familiar with the production than would be desirable. However, a makeup artist can usually be secured or trained within the theatre organization itself.

For large cast shows, the makeup can be applied by a staff (persons acquainted with stage makeup) under the direction of the makeup artist.

Or the actors themselves can apply their own makeup under the supervision of a makeup artist. This is the most

---

[28] Corson, p. 185.

[29] Corson, pp. 183-85. Heffner, pp. 423-24, 435-36, 451-52.

desirable method for educational theatre; each actor learns the art of makeup and, at the same time, his work is co-ordinated with that of the other actors.

The desirability for uniformity of style in makeup can make unsupervised and unintegrated makeup designs inadvisable in professional shows; in amateur theatre, lack of supervision can spell chaos.

Makeup rehearsal.--Makeup rehearsal[30] permits the actor to become accustomed to his makeup and permits the makeup designer to determine any alterations in the final makeup design.

Enough time for application and the proper materials are essentials for makeup rehearsal. If actors inexperienced with makeup are applying their own makeup, they should have done so prior to makeup rehearsal both to determine the time they need and to practice the application itself. If makeup includes not easily managed hair or other pieces, rehearsal with them prior to makeup rehearsal is desirable.

Dress rehearsal.--During dress rehearsal, the objective of makeup is accurate and integrated execution of the final makeup design as determined by the makeup rehearsal.

---

[30]Heffner, pp. 448-49.

Makeup Considerations Applied
to Oedipus Rex

Information required for
the makeup design

Basic requirements

The makeup design was produced by a joint conference
of the director, technical director, technical advisor,
costumer, and makeup staff--each of whom had a different
degree of basic makeup knowledge.

Script requirements

From the script, the following considerations could
be inferred:

    1. Masks and wigs might be used.[31]

    2. The blinding of Oedipus would probably be the
only need for makeup alteration.[32]

    3. Persons of various social status would require
different masks or makeup.[33]

    4. The exact number of actors would have to be
ascertained from the director.

Director's requirements

From the director the following was learned:

    1. Masks and wigs would not be used.

-----

[31]Above, p. 56.   [32]Above, p. 47.

[33]Above, p. 56.

2. Stylized and masklike makeup would be used.

3. Only the blind entrance of Oedipus would re-
quire a makeup change.

4. The cast would include a chorus of twelve to
sixteen (half men and half women), a palace official,
two female attendants instead of the one male attendant,
Ismene, Antigone, a boy to lead the blind prophet, and
the remaining list of characters on the script cast list.

5. Hair styles would have to be modified in accord
with a stylized Grecian appearance.

6. Royalty should be less stylized than the cho-
rus; all social status should differ.

Other technical
design requirements

Like all other technical areas, makeup would neces-
sarily reflect the production style and mood. In that
manner, it would be integrated with the total technical
design.

Chorus makeup especially should be high value hues,
for chorus members would frequently be close to the saturated
hues from the footlights.

Equipment requirements

Makeup worksheets would be made out for each actor,
who would purchase and apply his own makeup in accord with
his worksheet and under the supervision of a makeup staff.

Rooms for making up would have to be scheduled for
makeup and dress rehearsals and performances. (There are
no makeup rooms at South Dakota State College; classrooms
in the theatre building are generally engaged for makeup
and dressing rooms.)

Graphic recording of
the makeup design

Producing the design

Several individual makeup designs had been tried
out under stage lights before the director, technical
director, technical advisor, costumer, and makeup staff
met to determine the basic makeup design. From the basic
design, the makeup staff designed the makeup for each
individual actor and completed a work sheet for him.

The three strongest determining factors of makeup
were that all makeup should be stylized and masklike,
the royalty should have less stylized makeup than the
chorus, each social status should be indicated by makeup
differentiation.[34]

Makeup design for the face.--Makeup would be
stylized by the particular use of colors in the base and
colors, broadness, and minimization in the modeling.
The chorus would be made most stylized by choice of color
for the face base and brow lines--high values of yellow

---

[34]Above, p. 247.

and green respectively. (The high values would help counteract the saturated hues from the footlights.)

For the face base, the royal men would have a red hue, royal women an orange hue, royal attendants a green hue, other men an orange or brown hue.

All hues would be relatively unsaturated; men would have deeper color values than women, older men less deep than younger. Chorus color values would be less than for other cast members of the same sex.

The modeling of the face for the whole cast would be similar; however, lip and cheek rouge would be used by women of the royal house alone, and the green brows of the chorus would differ from the brown and black brows of the other cast members.

All of the makeup materials would be Max Factor; face makeup would be greasepaint application.

Makeup design for the body.--Body makeup would be liquid; all men would use red hues, all women would use orange hues. The value of the men's base would be darker. No body modeling colors would be used for any character.

Makeup design for the hair.--The primary problem concerning women's hair was to make the naturally short hair styles of many appear longer and more Grecian without the purchase or rental of costly wigs or hair pieces.

Chorus women would wear chignons in snoods the color of their costumes; the attendants would wear floating veils

of the material of their peplos; the daughters would wear their hair in a soft crown of waves; Jocasta would have a chignon plus a figure eight knot on top of her head.

It was desirable for all men to have hair longer than their normal style; consequently, soon after try-outs all men were asked not to have haircuts. (Such procedure is advisable in any show, for new haircuts appear very thin and bare from the audience.) Two men in the chorus would have their natural beards and mustaches; the others would be cleanshaven. The priest, shepherd, and messenger would be cleanshaven and have grayed hair. Teresias would have a long white wig and beard of crepe hair. Oedipus and Creon would have dark beards of crepe hair.

Recording the design

In order to make the final graphic recording of the makeup design for Oedipus Rex more compact, a consistent set of symbols and abbreviations is used.

Makeup modeling.--All areas for modeling are described briefly.

Makeup color.--Colors are designated not by manu-facturer's numbers or names but according to hue and value. (Saturation of the makeup colors is roughly constant; al-though base colors generally are more unsaturated than modeling colors.) Color hue is designated by letters; color

value is designated by numbers from one to twelve--one is the lightest tint, twelve is the darkest shade.

Code for color hues:

R--red   B--blue
O--orange   Br--brown
Y--yellow   N--neutral from white to black
G--green

Thus, N1 is white; N12 is black; B6 is medium value blue.

Makeup application.--Application is footnoted--greasepaint for the face, greaseless liquid for the body.

Abbreviations.--Ch. stands for character. Col. stands for color. ESh. stands for eye shadow. Each individual makeup is listed after the character(s) for whom it is used; each character name is abbreviated.

Code for character names:

Mn--men of the chorus
W--women of the chorus
B--boy to lead Teiresias
PO--palace official
T--Teiresias
P--priest
S--shepherd
M--messenger
1A--first attendant
2A--second attendant
D--daughters of Oedipus and Jocasta
J--Jocasta
C--Creon
O--Oedipus
Ob--Oedipus blinded

Plates.--In addition to Plate XVIII, Plates IV, VII, and IX also pictorially record some of the makeup.

TABLE 16

FINAL MAKE UP DESIGN FOR OEDIPUS REX

	Body[a]		Face[b]				Keh[d]			Hair
	Base	Base[c]	Brows		Under eyes			Other Modeling		
Ch.	Col.	Col.	Modeling	Col.	Modeling	Col.	Col.	Modeling	Col.	
Mn.	R9	Y5	Heavy, un-natural, straight lines; run at a "V" angle from the nose	G6	Heavy lines from nose onto temple; follow eye curve	Br9	Br9	None		Two with beards and mustaches
W.	OBr5	Y4								Chignon in snood
B.	None	BrR9	None		None		Kot	None		
FO.	R9	R9	As chorus	Br9	As chorus	Br9	Br9	Nasolabial and brow lines	Br9	
T.	None	O5	As chorus, but more curved	N1	Entire eye lid and socket	N12		Nasolabial lines	Br9	Long white wig and beard of crepe hair
F.	R9	BrR9	As chorus	Br9	As chorus	Br9	Br9	Nasolabial, brow, and chin lines	Br9	Hair whit-ening

S.	R9	07	Light, natural line	Br7	As chorus, but less extended	Br9	Br9	Nasolabial, brow, and chin lines	Br9	Hair whitening
M.	R9	06	As chorus, but hook-shaped	Br9	As chorus, but less extended	Br9	Br9	Nasolabial, brow, and chin lines	Br9	Hair whitening
1A.	04	G3	As chorus	N11	As chorus	Br9	06	Rouge lips	06 R10	
2A.	04	B3	As chorus	Br9	As chorus	Br9	B6	Rouge lips	B6 R10	
D.	05	05	As chorus, but less slanted	Br9	As chorus, but less extended	Br9	B7	Rouge lips	R5 R05	
J.	07	05	As chorus, but more curved and heavier	N11	As chorus	Br9	N6	Lips	R10	Chignon, and figure eight on top; N11
C.	R9	R9	As chorus, but less slanted	Br9	As chorus	Br9	Br9			Beard penciled in; Br9 & N11
O.	R9	R9	As chorus, but less slanted	Br9	As chorus	Br9	Br9			Beard penciled in; Br9 & N11
Ob.	Same	Same	Same	"	Eye socket and lid covered	N1	N1	Drops and streaks from eyes onto cheeks	R9	Same

a Liquid base with no modeling
b Greasepaint
c Determined by greasepaint and powder
d Naturally modeled

PLATE XVIII

MAKEUP

Basic male makeup for the chorus.

Basic male makeup altered

| Shepherd | Messenger | Teiresias |

Basic female makeup for the chorus.

Basic female makeup altered.

| Attendant | Child | Jocasta |

Execution of the
makeup design

Method of execution

Each Actor purchased and applied his own makeup under the supervision of the makeup staff.

Makeup rehearsal

During makeup rehearsal, May 20, 1958, three primary alterations were made in the makeup design.

The beards of both Oedipus and Creon were too dark and angular as constructed from crepe hair. (Pictures were taken the night of makeup rehearsal, and several of the plates indicate the incorrect beards.) Thereafter the beards were penciled on with black and brown makeup pencils.

One attendant's green face base had to be changed to blue because of the coloring of her own eyes and hair.

Makeup for Oedipus' blind entrance had to be coordinated with lighting. Both light color media and makeup modeling had to be modified--the eyelid base had to be highlighted with white and the red areas had to be more intense and farther apart.

Dress rehearsal

No further alterations were made in the makeup design for the production.

CHAPTER VIII

DESIGNING AND EXECUTING THE PROPERTIES

TABLE OF CONTENTS FOR CHAPTER VIII

Part 1. General Considerations
in Properties

BODY FOR CHAPTER VIII

General Considerations in Properties

Two kinds of properties-- stage and hand

Stage properties

Stage props[1] are those pieces of furniture, draperies, paintings, rugs, books, flowers, shrubbery, boxes, cans, and so on which normally remain on the set during a scene. Their purpose is to "dress," or make complete, the set.

Hand properties

Hand props[2] are those infinite number of things carried on to the set by the actors--canes, hats, coats, food, dishes, suitcases, combs, letters, cigarettes, ad infinitum. It is their purpose to make possible the stage business which is essential to the script and the characters.

Some productional organization includes sound effects as a part of properties. Sound effects will be treated as a separate technical area in this thesis.

Producing a Property design

---

[1]Dolman, p. 268. Gassner, pp. 187, 688. Heffner, p. 109.

[2]As footnote number 1.

Information required to
produce a property design

Script requirements.--The prop chairman must first
study the script[3] taking special note of both stage and
hand props. Props are generally one of the most numerous
considerations in the play; consequently, it is advisable
to list and briefly describe each prop as one goes through
the script.

Director's requirements.--The property chairman
should then check his prop list with the director's prop
list.[4] Any modifications or additions of the director
can then be used to correct the prop chairman's list.
From the director, the prop chairman will also learn the
style and mood of the play. If the style is realistic or
modified realism, historical research may be necessary to
discover the proper kind of furniture, dishes, and so on.

Other technical design requirements.[5]--Props must
be integrated with other technical areas in productional
style and mood.

Stage props must be especially coordinated with the
set in style, colors, and balanced and sufficient arrangement.

---

[3]Gassner, p. 688.

[4]Gassner, p. 689. Heffner, pp. 106-107.

[5]Gassner, pp. 423, 689.

Execution of a prop design

Method of execution.[8]--It would be impossible to have
available all the props that any show might require, for
nearly any article known or conceivable may be required
for a given show.

Some props may come from the available stock of props;
some may be modified from the prop stock; some may be made
from available scene shop and other materials; some may be
bought, or rented, or borrowed (handled with great care
and returned immediately after use); some may be concocted
from any combination of any materials. The greatest asset
for any prop designer is ingenuity; a catalogue, dime store,
hardware store, and/or second hand store plus ingenuity will
produce any needed prop.

Prop rehearsal.[9]--The prop rehearsal is for the actor
to become accustomed to using and handling the props and
for the prop chairman to discover any necessary alterations
or additions in the prop design.

Prop rehearsal should be one of the earliest tech-
nical rehearsals. Especially difficult pieces of business
should be rehearsed with the props (or substitute ones)
long before prop rehearsal.

------

[8]Dolman, p. 373. Gassner, pp. 264, 338-41, 641,
688-93. Heffner, p. 106.

[9]Gassner, pp. 187, 192, 689, 836. Heffner, p. 276.

During prop and all remaining rehearsals and per-
formances, a prop crew is necessary both to move and shift
stage props and to feed hand props. Each prop must have a
specific handler or handlers and a specific place on and
back stage.

Small hand props should be placed on a prop table
near their point of entrance; larger hand props may be
placed on, under, or near the prop table.

Stage props may be flown, moved about on the stage,
or removed from the stage and taken into the wings. What-
ever their handling, they must be handled by designated
persons, at a designated time, in a designated way, to a
designated place. Property handling and placement requires
minute and exacting organization, for props are generally
numerous and very essential to the stage business.

Dress rehearsal.--During dress rehearsal, the em-
phasis in properties should be upon smooth and accurate hand-
ling; additional modifications should not be necessary.

Property Considerations
Applied to Oedipus Rex

Information required for
the property design

Script requirements

The minimal number of props required by the Oedipus
Rex script is incredible in theatre prop lists. However,

the script calls for only a garland branch and incense for
Jocasta (page fifty).

Director's requirements

Several other props were added by the director.

1. Each of the chorus members would enter in sup-
plication and would carry a branch of supplication.

2. An incense bowl or other offering would be needed
for the priest to place upon the altar at his entrance.

3. The messenger would have a walking stick.

4. Oedipus and Creon would need laurels; Oedipus'
laurel would dominate. (Consider this jointly with the cos-
tumes.)

5. Oedipus would need a scepter.

Other technical design
requirements

The props had to be especially integrated with the
colors of the set and costuming. Only one stage prop, a
bowl for the altar, was needed.

Stage business requirements

All hand props should be easy to handle. The laurels
should fit with ease and not hamper head gestures or bodily
movement.

Graphic recording of
the property design

Producing the design

The prop chairman consulted with the other technical
designers; together they produced the property design which
was later accepted by the director.

The supplication boughs would be made of three to
four foot branches with a frayed muslin rag on one end.
(Ancient Greek supplication boughs would have had loose wool
on one end.) They would be painted in the less saturated
set colors.

The messenger's walking stick would be a branch
approximately six feet long painted a set color.

The laurels would be made of artificial leaves (from
the prop room); Oedipus' laurel would be painted gold.

Oedipus would use a scepter (from the prop room) made
from a dowel and plywood and painted gold.

A lilac branch would be used for Jocasta's garland
branch.

Jocasta's incense container would be a small, gold
bowl.

The entrance of the priest and chorus would open the
play; movement would be slow and there would be no dialogue;
consequently, the priest's offering could be ceremonious and
attention-getting. Therefore it was decided to have the
priest enter with a lighted torch and light the altar bowl
which would contain cold fire.

Recording the design

The prop design is recorded on the prop plot.

Color is recorded by hue and value. Value is designated by number from the lightest tint (one) to the darkest shade (twelve). Hue is designated by letter; R is red, O is orange, B is blue, G is green, and N is neutral from white to black.

Other plates in the thesis picture the props and are indicated on the prop plot.

Execution of the property design

Method of execution

1. All chorus members and the messenger were asked to bring their own branches. Tieing on the rags and painting was the responsibility of the prop chairman.

2. Execution of the laurels was done by the costume staff.

3. The scepter was gotten from the prop room and painted gold.

4. A fresh lilac branch was cut each evening.

5. A small gold flower pot shaped like a truncated cone was found and borrowed for the incense bowl.

6. The alter bowl was made from a hub cap purchased at a second hand store, attached to a piece of 1" X 6" lumber,

TABLE 17

FINAL PROPERTY DESIGN FOR OEDIPUS REX

Prop	Material	Col.	Placement	Cue	For	Plate
Supplication boughs	3 to 4 feet branches; frayed muslin rag on one end	BN4 BGN4 BRN4 RON4	Scene shop table	Before show	All chorus members	III IX XV
Walking stick	6 foot branch	BN4	SR prop table	p. 50	Messgr.	V
Laurel	Artificial leaves	Gold	Dressing room	Before show	Oedipus	VII
			SL prop table	p. 65	Creon	
Laurel	Artificial leaves	G10	Dressing room	Before show	Creon	VII
Scepter	Dowel and plywood	Gold	SR prop table	p. 25	Oedipus	VII
			SL prop table	p. 65	Creon	
Garland branch	Lilac branch	G9	SR prop table	p. 50	Jocasta	XI
Incense	Small flower pot	Gold	SR prop table	p. 50	Jocasta	
Altar bowl	Bub cap on 1X6; small tin can	Gold	On altar	Before show	Set	XII
Cold fire	one-ninth qt.		In altar bowl	Before show	Set	XII

Can of water	Tin can		Behind and below altar	Before show	Torch (Priest)	
Torch	Balsa wood		SL prop table	p. 25	Priest	
Lighter fluid			SL prop table	p. 25	Torch	
Matches			SL prop table	p. 25	Torch	

ªAll props are placed and handled by the prop chairman.

and painted gold. A small tin can to hold the cold fire was soldered inside.

7. Two types of torches were tried--a dowel with muslin wrapped about one end and a balsa wood stick with one end soaked in lighter fluid. The latter proved more satisfactory and was used.

8. A can of water was placed under the altar for putting out the torch.

9. Balsa wood, lighter fluid, matches, and cans for the torch were all available from the scene shop.

10. A quart of cold fire was ordered from a theatre supply house.

Prop rehearsal

Prior to prop rehearsal, Oedipus had been rehearsing with a substitute scepter. On Monday, May 19, all props were added.

Lighting the torch for the priest's entrance had to be synchronized with the end of the opening music. The cue was given by the sound technician to the prop chairman.

The messenger's walking stick broke and had to be replaced.

Dress rehearsal

No alterations were made in properties; however, one alteration occurred on opening night.

In order to be sure of sufficient cold fire for the performances, it was originally decided to save two-thirds of the quart for the performances and use one-third for the three previous rehearsals. The cold fire burned longer than was anticipated, and the one-ninth of a quart integrated with the script and action. So it was decided to use one-ninth of a quart for each performance, also. This instruction did not get passed on to the property chairman and one-third of a quart was used on opening night. No special ventilation had been provided for the altar fire, and the quantity of fumes produced by one-third of a quart of cold fire was distracting to the actors and audience.

Needless to say, this problem was corrected for the second performance.

CHAPTER IX

DESIGNING AND EXECUTING THE SOUND EFFECTS

TABLE OF CONTENTS FOR CHAPTER IX

Part 1. General Considerations
in Sound Effects

Part 2. Sound Effects Considerations
Applied to Oedipus Rex

BODY FOR CHAPTER IX

General Considerations in Sound Effects

Any sound effect has as its specific purpose to
suggest reality (It is often impossible to make a com-
pletely realistic sound effect.) and help suggest the
desired mood and audience image. However, sound effects
frequently not only fall short of their specific purpose
but also actually detract from and are the most inferior
part of a production.[1] Inferiority in sound effects is
generally attributable to lack of ingenuity and/or lack
of knowledge about electronic sound reproduction. As
John Gassner says:

> Conventional methods of producing sound ef-
> fects are usually bad, and the standards of to-
> day's theatre extremely low in this respect.
> In no other field of the theatre is there as
> much need for intelligent creative effort by
> the technician.[2]

Four kinds of sound effects

Certainly there is no best method for producing all
sound effects, but there is a best method for producing a
given effect--that method which most closely approximates
reality and suggests the desired mood and audience image.[3]
The best method for producing a given effect may be by human

---

[1]Gassner, pp. 744-46. Heffner, p. 410.

[2]Gassner, p. 746.

[3]Gassner, pp. 744-45. Heffner, p. 411.

voice, by mechanical or electrical machines, by electronic
reproductions, or by a combination of methods and means.

Human voice

For some sound effects (bird and animal sounds
especially), human imitation works best.[4] Human imitation
has the advantage that the effect can be easily synchronized
with the cue; it has the disadvantage that the effect will
probably differ from time to time; however, so long as the
difference does not alter the effect's credibility and im-
pression, the difference is not relevant.

Mechanical or electrical machines

For some sound effects, the machine which actually
produces the sound or a substitute machine are best.[5] The
sound of a musical instrument or a bell is often best pro-
duced by the instrument itself. Avalanches, breaking glass,
creaking doors, rain, wind, fire are frequently best produced
by traditional sound effects machines.

Such machines have the advantages of being simple
devices with easy loudness control.[6] The disadvantage of
this method is that many sounds cannot be produced by mechanical
or electrical machines.

---

[4]Gassner, p. 747. Heffner, p. 414.

[5]Gassner, pp. 747-53. Heffner, pp. 414-18.

[6]Heffner, p. 414.

Electronic reproduction

Recorded sound (on discs and tapes) is generally the best method for producing music as well as the majority of sound effects.[7]

Electronic sound systems in general have the disadvantage of requiring complex and expensive equipment and a trained technician for operation.[8] Discs have the added disadvantage of being difficult to cue.[9] Cueing a tape, however, should not be disadvantageous except for split second synchronization.

The disadvantages of electronic sound reproduction, however, are outweighed by the advantages--quality and control of sound, variety of available and predicable effects, exact duplication of sound for each rehearsal and performance. Occasionally taping of all the sound effects for a show is possible; in such a case, the minimum number of technicians and equipment is decidedly advantageous.

Combinations

More complex sounds (crashes, airplanes, factory noise, fire engines, trains) are frequently best produced

---

[7]Dolman, p. 374. Gassner, p. 427. Heffner, pp. 410, 414.

[8]Gassner, p. 745.

[9]Ibid.

by a combination of several of the other three methods.[10]

Producing a sound
effects design

Information required

Basic requirements.--The sound designer should have knowledge of traditional sound effects production (although this should not limit his ingenuity) and understand the principles of electronic sound reproduction; the latter is essential if good sound is to be had. A broad understanding of music is additionally helpful.

Script requirements.--The sound effects designer should study the script noting the effects called for and listing possible ways to achieve them.

Director's requirements.--The director's interpretation of the play directly controls the kind and amount of sound effects.[11] The director should accept or reject each sound effects production on the basis of its ability or lack of ability to integrate with his approach to the play. Certainly all music, including opening and closing music (if used), should reflect the mood and style of the production.[12]

---

[10]Gassner, pp. 747-55. Heffner, pp. 414-18.

[11]Gassner, pp. 745-46.

[12]Ibid., p. 599.

Other technical design requirements.--Sound effects
must often be synchronized with lighting and/or curtain.
Effects such as phone bells and door bells must appear to
come from the direction of the object.[13]

Stage business requirements.--Sound effects fre-
quently accompany action on the stage or break dialogue at
a given instant. In such cases, they must be instantaneously
controllable and carefully rehearsed with the action. If
background music or other background effects are used, they
should be added early to insure integration with the actor's
projection, and mood.

Equipment requirements.--Traditional electrical and
mechanical machines can be easily and inexpensively built[14]
and are seldom lacking in a theatre's sound system.

The electronic system of sound equipment is, how-
ever, generally inferior to what it could be (even with
frequent budget limitations) because of ignorance of
electronics on the part of the theatre people themselves.[15]

Widespread consciousness of good sound (through
improved radio transmission, high fidelity recordings,
superior sound reproductions in movies and television, and

---

[13]Dolman, pp. 374-75. Gassner, p. 596.

[14]Dolman, pp. 373-74. Gassner, pp. 747-53.
Heffner, 414-18.

[15]Gassner, pp. 744-46. Heffner, 410-11.

so on) may force the theatre sound technicians to understand and utilize the vast new sound developments.

Use of old 78 r.p.m., scratchy, poor fidelity sound effects records cannot result in sound credibility for any audience. Likewise, use of an inferior instrument in any part of the sound system will make the final sound inferior. A sound system, like a chain, is only as strong as its weakest part, for distortion introduced at any step will not be corrected at another step.

Selecting a good electronic sound effects system for any theatre requires knowledge of that theatre--its acoustics, the types of productions given, the budget, and other unique features--plus an understanding of sound electronics. (Frequently this takes pooling of knowledge by someone acquainted with the theatre and someone acquainted with sound electronics.) However, some general electronic system considerations for any theatre can be listed.[16]

1. There should be sufficient speakers so that some may be in the auditorium for music and some may be back stage for directional sound effects.

2. Although house speakers may be permanently installed (after the best directions, baffles, speakers, and number of speakers for the auditorium acoustics have

---

16Dolman, p. 374. Gaeener., pp. 551-52, 598. Heffner, pp. 411-13.

been found), the back stage speakers should have long corde
and be movable to any desired position.

3. Because good electronic sound equipment is expen-
sive, sensitive, and easily damaged, technicians must be
trained to use and store it carefully and correctly.

4. All equipment should be capable of high fidelity
reproduction.

5. Turntables should be multi-speed and have some
arms capable of pickup from two turntables.

6. All controls--turntables, tape recorders, volume
faders, and so on--should be located at the back of the
auditorium, for most sound cues are visual or aural and are
best seen or heard from the auditorium rear.

Placing controls at the auditorium rear has addi-
tional advantages. The sensitive equipment is not subject
during the show to bumping or bouncing by actors or crew
(as can happen in a crowded wing area). After the show,
the equipment can (without being struck) be looked away from
inquisitive and untrained hands.

7. Speakers must be placed in good baffles.

8. For budgetary reasons, the sound system may need
to be planned piece by piece. Essentials are one amplifier,
two multi-speed turntables, one microphone, and two speakers
in good baffles--all capable of high fidelity reproduction.
Next additions would probably be two more speakers and a

tape recorder capable of recording sounds from nature as well as the human voice.

A sound system can continue to be perfected and improved to meet the demands of the theatre. Ability to use any number of speakers (including the house speakers) separately or together is often advantageous; master faders or perhaps stereophonic sound would be assets; and so on.

Graphic recording of a sound effects design

The record of sound effects for a show includes a label and description for each sound, how it is produced, the cue for its production, and the person(s) executing the effect.[17]

Execution of a sound effects design

Method of execution.--Sound effects if not produced orally may be bought, made, rented, or borrowed.

Most traditional effects machines can be easily and inexpensively made. Renting or borrowing some expensive or little used instruments may be advisable.

Electronic equipment should be bought (with careful and knowledgeful consideration). Renting or borrowing electronic instruments may be advisable when purchase is

---

[17]Gassner, pp. 194-95.

impossible at the time; extreme care must be taken of borrowed or rented instruments.

Sound effects rehearsal.--Sound effects rehearsal is for stage action to be integrated with sound, for the sound technician(s) to set the control readings and verify the cues, and for the sound effects design to be checked for credibility and integration with the production.

Dress rehearsal.--During dress rehearsal, the emphasis in sound effects should be upon smooth and accurate production of the effects; additional modifications should not be necessary.

Sound Effects Considerations
Applied to Oedipus Rex

Information required for
the sound effects design

Script requirements

There are no specific requirements for sound in the Oedipus Rex script. If any choral odes or parts of the odes were to be sung, a lute or flute might be used for accompaniment.[18] Music to open and/or close the show might be needed.

Director's requirements

There would be no singing or need for ode accompaniment. Music in keeping with the tragic mood of the play

---

[18]Above, p. 48.

would be needed to open the show. Sound would have to fill
the dialogue gaps during some stage movements. Music at the
end would not be necessary.

Other technical requirements

Opening sound would have to be integrated with the
opening curtain and lights. Taping the sound would insure
volume control and precise timing. All opening cues could
be taken from the tape reading.

Stage business requirements

The stage movements without dialogue would have to
be known to determine the length and number of sound effects.

Equipment requirements

The sound equipment at South Dakota State College
Theatre is very limited and of inferior quality.

No turntables are available for recorded sound effects;
one old, inferior record player belongs to the Speech Depart-
ment.

One good, one fair, and one poor tape recorder belong
to the Speech Department. The good machine is designed to
record natural sounds as well as the human voice and is
generally adequate (but not always available) for taped
sounds.

The theatre owns no speakers, amplifiers, or micro-
phones; few mechanical and electrical machines; and a lim-
ited number of music and sound effects records.

There are two speakers permanently built into the
auditorium with fair direction for audience coverage. A
direct line runs from the auditorium speakers into the stage
left fly gallery; if this line is used, all amplification
and control must come from the instruments which are jacked
into the line. There is an amplifier and control unit for
the auditorium speakers on stage right into which instruments
can be jacked. The unit is poorly located in the path of the
curtain puller, light control board operator, and stage man-
ager, and access to it must be gained through the audio-visual
aids department.

Graphic recording of the sound effects design

Producing the design

Symphony Number Two[19] by Sibelius was selected. The
record was then tape recorded on a high fidelity system. The
tape readings for the final few musical phrases were listed
as a guide for possible light change breaking points. Light

---

[19]Sibelius, Symphony No. 2 in D. Major, Op. 43
(Columbia Masterworks, The Philadelphia Orchestra).

changes were coordinated with the tape readings, and the cues were set.

Rehearsals were attended; dialogue gaps were listed. The director and technical director jointly decided that the gaps were so short in duration that tympani beats (produced intermittently in various patterns) would be more effective than short snatches of music. The dialogue gaps which needed filling were as follows:

1. Between the prologue and the parados (page 30), the chorus placed their supplication boughs upon the altar.

2. Between the first episode and the first stasimon (pages 38-39), the chorus had movement without dialogue.

3. Between the first stasimon and the second episode (page 39), there was again choral movement without dialogue.

4. Between the final episode and stasimon (page 68), there was a dialogue gap during the exits of Oedipus and the children.

Recording the design

Abbreviations.--Lt. stands for lighting; ch. stands for chorus.

Plate.--Plate III shows the general action for sound cue number nine.

Crew.--All sound effects were executed by the single sound technician.

TABLE 18

FINAL SOUND EFFECTS DESIGN FOR OEDIPUS REX

Cue #	Sound effect	Cue: tape or page no.	Cue: general action
1.	Taped music	15 (7:22)	Start tape; give lt. cue 1.
2.	Taped music	c. 900	Warn lt.
3.	Taped music	988 (7:58)	Give lt. cue 2
4.	Taped music	1035	Give lt. cue 3
5.	Taped music	1097	Give lt. cue 4
6.	Taped music	1104	Give lt. cue 5 and curtain cue
7.	Taped music	1139	Give lt. cue 6
8.	Taped music	1180 (8:05)	Give lt. cue 7; end of taped music
9.	Tympani beats	p. 30	During ch. movement
10.	Tympani beats	pp. 38 & 39	During ch. movement
11.	Tympani beats	p. 39	During ch. movement
12.	Tympani beats	p. 68	During exits of Oedipus and the children

Execution of the sound effects design

Method of execution

The taped music was played from the stage left fly gallery and jacked directly into the audience speaker line.

The tympani were borrowed from the South Dakota State
College Music Department and placed in the stage left wing.

Sound rehearsal

The taped music was added May 19, 1958, and coordin-
ated with the show opening; no change was necessary in cues
or electronic setup.

Dress rehearsal

The tympani were not added until dress rehearsal,
May 21, 1958. The final series of tympani beats had to be
altered to last until the exit of the daughters through the
palace doors.

No sound alterations were needed for the performances.

CHAPTER X

PUBLICITY AND FRONT OF THE HOUSE

TABLE OF CONTENTS FOR CHAPTER X

BODY FOR CHAPTER X

General Considerations in Publicity
and Front of the House

Both the publicity staff and the house staff (as well
as the budget) are under the jurisdiction of the business
manager. There are numerous considerations for the business
manager and the various personnel in the publicity and house
staffs; however, only those considerations which should be
especially closely integrated with the technical considera-
tions will be discussed in this thesis of technical direction.

Publicity considerations[1]

The publicity staff in being responsible for publi-
cizing and selling the performance to the public should
attempt to reflect the productional mood and style in the
publicity. It is in this respect that the technical work
and the publicity work can be especially integrated in visual
publicity. (1) The kind and style of play can be indicated
by use of color and other design elements and principles in
the visual publicity. (2) The same design style can be used
throughout programs, posters, tickets, and all visual publi-
city for tryouts and the production. (3) Use of actual
factors from the set, costumes, props, and so on can indicate
what will be seen during the production.

---

[1]Heffner, pp. 11, 13-14.

The technical staff is also responsible for seeing that the business manager gets a complete and accurate list of the technical personnel for the program.

Front of the house considerations[2]

The house staff in being responsible for care of the audience during the show is frequently directly connected to the technical staff only if the house manager gives the stage manager the signal for the show to begin. Occasionally, however, additional technical considerations may be coordinated with the house staff; for instance, the ushers may be costumed in accord with a festive revue show.

Publicity and Front of the House Considerations Applied to Oedipus Rex

Publicity considerations

In Oedipus Rex, the productional mood and style were reflected in the publicity.

1. The colors on the posters and program covers were chosen to indicate the type of play. The basic background color--a partially saturated blue--indicated the tragic nature of the play. The few red accents were indicative of the tragedy and bloodshed. The straight lines and arrangement helped indicate the formal, classical nature of the play.

---

[2]Gassner, p. 188. Heffner, p. 14.

2.   Both the posters and the program covers for _Oedi-
pus Rex_ used the same basic design.

3.   Had either of the two major set pieces for _Oedipus
Rex_ been clearly reproduced (even without the detail) for
visual publicity, it would have been too large to incorporate
adequately on normal program and poster sizes. Consequently,
one column was used as indicative of the set and the Grecian
and classical nature of the play.

The technical crew was submitted to the publicity staff.
One error occurred on the final program; the sound technician
was omitted from the technical staff by an oversight in proof
reading--one of the many kinds of detailed work that the
publicity staff must do.

Plate XIX is an example of the final program.

Front of the house

The signal to open _Oedipus Rex_ came not from the house
manager, but from the sound technician; no specific technical
demands were made upon the house staff. During the show, how-
ever, the house manager was available for communication from
the house to the stage manager.

PLATE XIX   290

FINAL OEDIPUS REX PROGRAM

State College Theatre Presents

SOPHOCLES'

OEDIPUS REX

MAY 22, 23, 1958,   8 P. M.
COLLEGE AUDITORIUM

PART III. INDEXED SUMMARY TOPICAL OUTLINE

AND CONCLUSION

CHAPTER I

SELECTING THE SCRIPT

CHAPTER II

UNDERSTANDING THE SCRIPT

Introduction

Body

CHAPTER III

DETERMINING THE APPROACH

CHAPTER IV

DESIGNING AND EXECUTING THE SET

CHAPTER V

DESIGNING AND EXECUTING THE COSTUMING

CHAPTER VI

DESIGNING AND EXECUTING THE LIGHTING

CHAPTER VII

DESIGNING AND EXECUTING THE MAKEUP

CHAPTER VIII

DESIGNING AND EXECUTING THE PROPERTIES

CHAPTER IX

DESIGNING AND EXECUTING THE SOUND EFFECTS

CHAPTER X

PUBLICITY AND FRONT OF THE HOUSE

CONCLUSION

The basic purpose of all technical work--to enhance
in the best possible way the expression of the play--is best
accomplished by integration of all technical areas and con-
siderations in accordance with the determined productional
approach. Although there are generally necessarily continual
adjustmente and/or alterations in the design selectivity in
such a unified technical direction, the coordinated and
integrated effort should produce the best possible specific
production of a play.

LITERATURE CITED

Altman, George, et al. Theatre Pictorial. Berkeley and Los
    Angeles, California: U. of California Press, 1953.

Bieber, Margarete. The History of the Greek and Roman Theatre.
    Princeton, New Jersey: Princeton U. Press, 1939.

Bowman, Wayne. Modern Theatre Lighting. New York: Harper
    & Brothers, 1957.

Burris-Meyer, Harold, and Cole, Edward C. Scenery for the
    Theatre. Boston: Little, Brown and Company, 1946.

Chalmers, Helena. Clothes On and Off the Stage. New York:
    D. Appleton and Company, 1928.

Corson, Richard. Stage Makeup. 2d ed. New York: Appleton-
    Century-Crofts, Inc., 1949.

Dolman, John, Jr. The Art of Play Production. 1st ed. re-
    vised. New York: Harper & Brothers Publishers, 1946.

Fifteen Greek Plays. Trans. Lane Cooper. New York: Oxford
    University Press, 1950.

Four Famous Greek Plays. Ed. Paul Landis. New York: The
    Modern Library, Inc., 1929.

Friederich, Willard J., and Fraser, John H. Scenery Design
    for the Amateur Stage. New York: The Macmillan
    Company, 1950.

Fromm, Erich. Man for Himself. New York: Rinehart and
    Company, Incorporated, 1947.

Gassner, John. Producing the Play. 1st ed. revised. New
    York: The Dryden Press, Publishers, 1953.

Greek Dramas. Ed. Bernadotte Perrin. New York: D. Appleton
    and Company, 1904.

Harsh, Philip Whaley. A Handbook of Classical Drama. Stanford,
    California: Stanford University Press, 1948.

Heffner, Hubert C., Selden, Samuel, and Sellman, Hunton D.
    Modern Theatre Practice. 3d ed. revised. New York:
    Appleton-Century-Crofts, Inc., 1946.

An Introduction to Drama. Ed. Jay B. Hubbell and John O.
    Beaty. New York: The Macmillan Company, 1927.

Johnson, Wendell. *People in Quandaries.* New York: Harper & Brothers, 1946.

Köhler, Carl, Von Sichart, Emma, and Dallas, Alexander K. *A History of Costume.* New York: G. Howard Watt, 1930.

Mahaffy, J. P. *A History of Classical Greek Literature.* Vols. I and II. New York: Harper & Brothers, 1880.

Max Factor's Hints on the Art of Make-up. 9 booklets. Hollywood, California: Max Factor Make-up Studio, 1952.

Melchinger, Siegfried. *Theater der Gegenwart.* Frankfurt, Germany: Fischer Bücherei, 1956.

Moulton, Richard G. *The Ancient Classical Drama.* 2d ed. Oxford: The Clarendon Press, 1898.

Nicoll, Allardyce. *Masks, Mimes, and Miracles.* London: George G. Harrap & Company Limited, 1931.

——. *The Development of the Theatre.* London: George G. Harrap & Company Limited, 1927.

Perfection Lighting Co. Inc. *Capitol Stage Lighting Apparatus.* Catalog No. 25. Hillside, New Jersey: Publisher Unknown, 1956.

Reinhold, Meyer. *Essentials of Greek and Roman Classics.* United States: Barron's Educational Series, Inc., 1946.

Sears, Francis Weston, and Zemansky, Mark W. *University Physics.* Cambridge, Mass.: Addison-Wesley Press, Inc., 1950.

Seven Famous Greek Plays. Ed. Whitney J. Oates and Eugene O'Neill, Jr. New York: Random House, 1950.

The Theban Plays. Trans. E. F. Watling. Baltimore, Md.: Penguin Books Inc., 1957.

The Tragedies of Sophocles. Ed. Theodore Alois Buckley. London: George Bell & Sons, 1886.

Waldock, A. J. A. *Sophocles the Dramatist.* Cambridge: The University Press, 1951.

Watt, Lauchlan Maclean. *Attic & Elizabethan Tragedy.* New York: E. P. Dutton & Co., 1908.

Whitman, Cedric H. Sophocles. Cambridge, Mass.: Harvard
    University Press, 1951.

Wilcox, R. Turner. The Mode in Costume. New York: Charles
    Scribner's Sons, 1944.

Young, Agnes Brooks. Stage Costuming. New York: The Mac-
    millan Company, 1933.