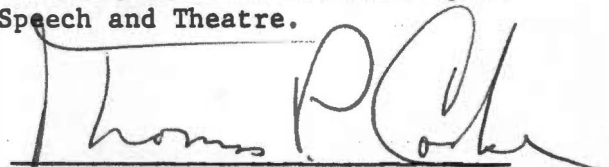


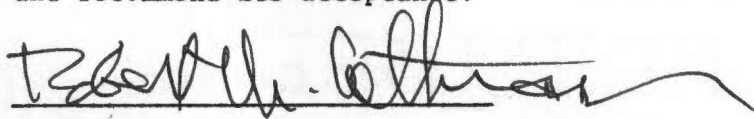
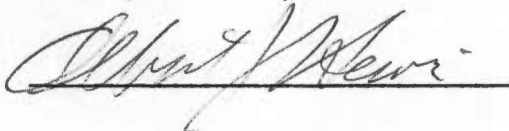
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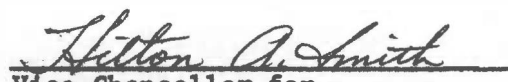
I am submitting herewith a thesis written by David Kip Kriebs entitled "Establishing Dramatic Space on Non-proscenium Stages through Lighting." I recommend that it be accepted for nine quarter hours of credit in partial fulfillment of the requirements for the degree of Master of Arts, with a major in Speech and Theatre.


Major Professor

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and recommend its acceptance:

Accepted for the Council:


Vice Chancellor for
Graduate Studies and Research

312

ESTABLISHING DRAMATIC SPACE ON NON-PROSCENIUM STAGES
THROUGH LIGHTING

A Thesis
Presented to
the Graduate Council of
The University of Tennessee

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts

by
David Kip Kriebs
August 1973

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The writer would also like to thank Miss Bonnie Henley, master operator for The Serpent, who provided, under difficult circumstances, the understanding and the depth of feeling required by that show; and Mr. James Harrison, who provided many hours of previously unacknowledged labor on that production.

ABSTRACT

The volume of space which contains an individual actor's psychological environment is defined, for the purpose of this thesis, as the dramatic space inhabited by that actor. These spaces are considered to be the volumes within which a measurement of the internal and external forces remains constant. Dramatic spaces vary in quality with the actions of the occupants of the spaces and with the varying conditions existing in the surrounding universe.

The lighting of a volume of space on an open stage represents a major proportion of the force exerted by the external universe. Because the lighting is under the control of a designer it can be made to represent any form of synthetic universe surrounding a production. The referent for the synthetic universe must always be the real universe.

A design for The Serpent is used to demonstrate the use of lighting to determine the dramatic spaces for one production on the open stage.

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INTRODUCTION

The response of an individual to the circumstances in which he finds himself is influenced by many factors. Some of these factors are internal, aspects of the personality of the individual, and some are ascribable to the conditions surrounding him. The individual inhabits a localized environment which exists for some distance surrounding him and whose qualities are determined by the sum of all the influences on him.

In the theatre, the audience can perceive this environment through both the actor's projection of his feelings and an understanding of the circumstances of the play. A second actor on the stage will influence and be influenced by the first. Even if the second actor is not seen by the audience he can influence the conditions affecting the actor who is on stage. The external influences on the actor's environment may be extended to include pressures from groups of individuals and impersonal forces of nature. The sum of all these influences considered against the personal qualities of the character as portrayed by the actor determines the environment which surrounds the character at any moment. The volume of space which contains an individual actor's environment is defined, for the purpose of this thesis, as the dramatic space inhabited by that actor.

The universe--meaning any and all elements which can affect some object of interest to us--always exerts an influence. In the real world both time and location affect this. The proximity of

antagonists or friendly elements, the favorability of weather conditions to the project at hand, chance meetings leading to aid or hindrance, all these and more influence a person's outlook and actions. Therefore, we must consider the influence of the universe at a specific location and for a specific period of time in determining the environment of a person or object of interest. The volume within which the environment of a person or object remains constant is considered, in the body of this thesis, to be the volume of a dramatic space. A dramatic space might include one person, several persons, or only part of a single person, depending upon whether the reactions in that space appear to be reacting to the same psychological environment. This definition of dramatic space permits spaces of widely varying dimensions.

In the theatre, the universe which influences a dramatic space is a synthetic creation of a collaboration of theatre artists. For this reason the influence of the universe on any dramatic space can be carefully established to convey the maximum information to the audience. The role which careful lighting can play in creating these theatrical environments, particularly on nonproscenium stages, is the subject for discussion in this thesis.

CHAPTER I

THE BOUNDARIES OF DRAMATIC SPACE

Dramatic space, as the term is used in this thesis, is that volume in which is perceived the psychological tension created by the actor during his performance. This space is not precisely a real space since it is psychological in nature. It is a four dimensional shape occupied by or controlled by a person or an object. The dimension of time is included with those of volume because the dramatic space must vary in time as the tensions generated by the actor vary. While this hypothetical space could be postulated about any being or object in the universe, it is here only considered within the theatre and on the stage. Its value to theatre lies in its ability, under certain circumstances, to provide condensed information to the audience. Since drama is distinguished by its ability to communicate to several senses simultaneously and its ability to condense lifetimes into a matter of hours, the ability to influence space is of greater interest here than in most other fields.

Dramatic space, like any other space in our world, is determined in part by what occupies that space and in part by what surrounds that space. A space is defined by the location of its boundaries, which may be within an object, lie on the surface of an object, or extend considerably beyond an object. Thermodynamics, a very precise discipline, has been described as the study of a system segregated

from its surroundings, where the surroundings include everything except the system, and the system includes only what is being studied.¹ Dramatic space is like the thermodynamic system in that its boundaries are the dividing line between the volume of the actor's influence and everything else.

These boundaries are psychological in nature and arise from our understanding of the nature of the space. For instance, outside of the theatre on a spring day, an open field has no boundaries; it is limitless space. An old car body in the field defines a space by enclosing it with its surface. It controls this space. If the same car were traveling down the road it would control a larger space by our expectation of its occupying the space for a distance in front of it.

In the same manner dramatic space is controlled by the object within it. A set wall delineates stage space; a set piece controls its own volume; a moving actor controls the space surrounding and preceding him. A well trained actor will often control the entire volume of a large stage.

Boundaries, however, are two sided. The boundary of dramatic space is the interface between the actor's projected possession of a part of the universe and, as in the thermodynamic system, the sum total of the rest of the universe applied to the objects contained within the dramatic space. The resolution of these two highly dynamic forces becomes the boundary of the dramatic space, and thus defines the space.

Dramatic space reflects the actor's reaction to his surroundings and also gives him something to react against. In the theatre both sides of the boundary are controllable. The actor exists in a synthetic universe, thus allowing careful definition of the dramatic space. This allows the actor, and the play, the ability to present complex images to the audience.

Our perception of this space is dominated by its visual aspects. The other senses aid in the perception of the spaces surrounding us, but the human optical system gathers and processes information so rapidly that, unless deprived of sight, a person relies primarily on his eyes. In the theatre, the audience is usually further confined to the visual sense by its static position in relation to the stage. Audience members usually cannot touch the stage, and the scents issuing from it are far too diffused and mixed to be of value. Sound is sometimes used to present information about the space surrounding the actors, but cannot overcome impressions which the audience receives visually. Audiences generally believe their eyes before their ears. If the stage appears to be a desert and is filled with the sounds of a swamp, most people will wonder why they hear the frogs rather than why they see the desert.

Control of the illumination of the dramatic space will determine the character of the information reflected from the space to the audience, thereby determining their understanding of it. The set design and the blocking determine the general aspects of the dramatic space, but the lighting can vary these aspects during the course of the performance. Light, like the actors, gives the added dimension

of change to the three dimensional dramatic space. Motion, the interaction of the spatial dimensions with time, is required for an object to control a space greater than its own volume. An object does not have to be in motion to control a space beyond its own boundaries, but it must have the ability to move. In order to hold sway over a distant space an object must have the potential of occupying that space in the future.

A rock, placed on the stage and evenly illuminated will control only its own area. This same rock, carefully supported and teetering over the stage, will dominate the area beneath it by its potential to occupy that space. If the overhanging rock is lit evenly from the sides and underneath the audience will be made less aware of it and its dominance of the space beneath it will decrease. If it is lit strongly from behind and above, so that it casts a strong shadow directly below itself, its dominance of the space will be increased. If it is lit so that its shadow extends beyond the area directly beneath it, its area of influence will be increased still further. Returning the rock to the stage floor, the same conditions apply; through the use of its shadow and the amount to which it is allowed to dominate the audience's attention, the amount of space it influences can be controlled.

With an actor occupying the dramatic space instead of a rock, the situation becomes more complex and more expressive. The actor does not need to enter the space to control it; merely the entrance of his will is sufficient for influence, and supremacy of his will sufficient for dominance. Further, the actor can vie with other

actors, or simply with the universe surrounding him. Unlike the inanimate object, which is governed by inflexible rules, the actor stands to win or lose something in every encounter, and the dramatic space surrounding him can be made to reflect this struggle.

Thus far we have considered only the way in which the dramatic space reacts to its occupant, but in theatre we control both sides of the boundary. The universe surrounding the actor can be represented as anything from harsh and inimical to him to caressing and inviting. The boundaries can be made hard and fast planes or soft and gently changing. The boundaries may be made to confine the actor, representing either a universe struggling against him or an omnipotent and indefatigable universe. They may be made to work with the actor, to extend his dramatic space far beyond his own body.

In all theatre arrangements the setting establishes the unchangeable aspects of the universe side of the boundary through the solid physical limits it places on stage space. In a nonproscenium arrangement, the limitations placed on the setting's ability to surround the action places greater emphasis on the lighting, to represent walls and set pieces where physically there are none. Even in the proscenium theatre, however, the ability of lighting to provide rapid and flexible change makes this art of great value in controlling the way the space reacts to the actor.

At the turn of the century these possibilities were seen by two designers: Adolphe Appia, working with Wagnerian opera, and Gordon Craig, working in theatrical set design. Both men, working in picture frame proscenium theatres, argued against the flat realism

then in vogue in theatrical design.² Appia sought to subordinate the background setting of the operas and to fill the stage with living light, or "a living play of light and shadow."³ Appia's work succeeded in making the set reflect the mood of the action as it changed through the opera. Craig, working independently but in the same field, sought to create a place rather than a scene. He, too, saw the value of using light for more than visibility. In his designs, he sought to vary the effects by working with the restrictions of form and altering "the appearance of the space" with light.⁴

Post Appian artists have been interested in the creation of pure space on the stage, spaces which are controlled by the actors alone, rather than imposed by a setting. Ideally, this would be the physical realization of an inner artistic vision of the play's character.⁵ Unfortunately, the realization of this ideal required more sophisticated equipment than the gas light. High intensity spotlights and modern electronic control systems have made practical new consideration of this ideal.⁶ New interest in non-proscenium staging, with the limits it places on the setting, has emphasized the need for this consideration. Lighting technology and artistry have until recently, however, been dominated by proscenium thinking.

Professional Broadway practices impose oldfashioned, heavy control boards on the designer. Since lighting instruments are easily obtained, light is thrown on the stage from many directions in an attempt to compensate for the lack of correct mounting positions.⁷ Very often, the uses of individual instruments are not analyzed until the show is cut down for the touring company.⁸

Educational and regional theatres generally have better control equipment than Broadway houses, although fewer instruments are available. Here, however, considerations of time and money often hinder progress. Artistic design concepts treating the subtlety of spacial control and its effects require time and experimentation to develop. Tight production schedules limit time, and few lighting designers are in an academic position to command the money and facilities required for extensive research.⁹ There is considerable experimentation being done in multi-media and psychedelic light shows, but the emphasis seems to be on creating atmosphere for the audience rather than on developing artistic space controlling techniques for the stage.

The manufacturers of the equipment used on the stage are almost the sole initiators of new technological designs in this country. They have developed the control systems which are now available, often with a great deal of insight into the artistic requirements of the designer. They are continually developing new light sources, better methods of coloring the light consistently, and better projection systems capable of punching through the high intensity of stage lighting. With the growing improvements comes growing cost. However, these people design for the needs of the moment. Their interest lies in advancing their profit, not the art. As David Thayer put it: "Any research program which attempts a theoretical or philosophical basis for control system design will be met with the practical objection that the companies cannot afford it."¹⁰

Current company backed design developments are tending toward computerization of lighting control. This provides a control console which is a technologist's dream, but is actually a hindrance to controlling stage space. If the lighting takes on a major responsibility for one side of the space boundary, then the lighting operator effectively becomes another actor. He must be able to hear with his eyes and speak instantly with his hands in response to any condition on stage. This requires a thorough knowledge of the play, the lighting design, and the use of each instrument. Computerized control systems rob the operator of his sense of the flow of the action on the stage, replacing this with discrete, unalterable cues and reliance on information stored in a memory bank rather than in the operator's own mind.

Despite these inhibiting factors, both technology and the artistic ability to use this technology have continued to improve. Standard stage lighting equipment is immeasurably better than that available to Craig and Appia. With this new equipment excellent results can be obtained in any theatre space. Dramatic space can be localized at any point in the theatre; it is no longer confined behind a proscenium arch.¹¹ The designer now has both the ability and the responsibility to not merely illuminate the actor and his surroundings but to define the actor's dramatic environment and assist in fully developing the play.

The concepts presented in this chapter, and throughout the rest of this thesis, apply to proscenium lighting design as well as to non-proscenium design. There are, however, two factors which increase the importance of these concepts for open stages.

On open stages the lighting shares equal importance with the setting in determining the stage environment, whereas on the proscenium stage the setting usually predominates through its ability to provide an opaque backdrop. Secondly, it is the ability to define spaces carefully with light that has allowed the open stage to vie competitively with proscenium theatres in modern theatrical practice.

CHAPTER II

THE INFLUENCE OF LIGHTING ON DRAMATIC SPACE

Using lighting to define dramatic space requires going beyond the first consideration of lighting, the selective visibility function. It is more than the space stage concept of "a spot picked out of darkness,"¹² which is simply an extreme case of selective visibility. A spot of light locates a space rather than defining one. Selective visibility serves to focus attention on an area, but it tells little about the nature of the area itself. Lighting, used to its fullest capabilities, can make a subtle statement of its own about the area and still focus attention when necessary.

Lighting forms one side of the boundary of dramatic space, and is under the control of a theatrical artist. It represents the pressure brought to bear at some point on the stage by the sum total of the synthetic universe of the drama. If there is nothing located at that point, either an actor or an object of the setting, the universe closes in about the point and no space is defined, it melds completely with the rest of the universe. There must be two sides to the boundary; there must be someone or something within the space to vie with the universe without. Light must have something to reflect from or else it is invisible. A beam of light striking nothing defines only a potential space.

A lighting designer must innately understand light; not by its physical properties but as a tangible substance. As Jean Rosenthal

expressed it, "Light is quite tactile to me. It has shape and dimension. It has an edge. It has quality and it is an entity."¹³ A lighting designer has to innately understand that his lighting must be reflected before it can be seen.

Light exists in a true symbolic relationship with all objects in the universe. Light cannot be seen without being reflected into the eyes of the viewer by something, but how the object is lit affects how we see everything that we see.¹⁴ The lighting designer's medium makes it easy for him to work symbolically within the theatre, which he must do. Not only must he cooperate with the physical conditions of his craft; he must cooperate with an entire staff of artists. The actor must have prime consideration in visibility, for this is where the major element of the communication of the play lies. The director has responsibility for the appearance of the play, and his view must be the final authority. The costume designer and the scene designer are responsible for the visual aspects of the stage, and their work needs to be seen as they designed it. It is the lighting design which ties all of these works together.

It is important to remember that lighting is a contributory art, a high craft serving the creative purposes of other men. We need the artist's approach, but to impose a separate artists' ego through light on the artistic whole becomes destructive.¹⁵

The lighting should always be considered for what it can contribute to the production. Its development of dramatic space is the product of an artistic mind, and requires consideration from the first stages of production planning. Its value lies, however, in the multiplicity of things which it can say in conjunction with a living actor.

This chapter considers lighting's ability to affect dramatic space without consideration of any specific production. It can be seen from the foregoing discussion, then, that this chapter is a consideration of lighting's potential ability to affect a dramatic space. Without consideration of all other aspects of a production, any discussion of lighting's effect upon an audience is not valid. The concepts presented in this chapter must be considered as a catalyst, nearly valueless by themselves but of great value when combined with all of the other aspects of nearly any production. These concepts will help to provide control over one side of the boundary of a dramatic space, the other side of which must be provided by the other elements of the production.

The boundary of dramatic space has three qualities which can be controlled through lighting. The first of these is the size and shape of the space contained within the boundary. These factors are determined by the location of the boundary throughout the time it exists. Lighting provides a major degree of control over this aspect through the function of selective visibility.

It is common knowledge that the most brightly lighted areas of the stage will draw the most attention. Since dramatic space is a psychological perception of the audience, this focusing of attention with light generally aids the object or person within that dramatic space to expand that space. It may also be an aid to decreasing the space if the occupant so desires. If the forces within the dramatic spaces surrounding the accentuated one are stronger than the force exerted by the occupant of that space, the attention of the

audience will seem to make this space shrink. The relative intensity of an area, then, generally affects the amount of control over the size of the dramatic space which is relinquished to the occupant of the space.

The physical volume of the space being illuminated also determines the size and shape of the dramatic space. In the previous case the size of the space was affected by causing the universe side of the boundary to yield to the conditions existing within the space. The control of the physical volume of the light forces the boundary from the universe side, confining the actor rather than reacting with him.

The extension of dramatic space along a shadow involves both of the above aspects. The size of the space is determined rigidly by the area which is not illuminated, a direct quality of the lighting from outside the dramatic space in question. But this area of control is assigned to the object casting the shadow because it draws the attention of the audience to the object.

The object casting a shadow need not be visible to the audience. Any object placed in the beam of the light, on or off stage, or a gobo placed in the instrument itself, will cast a shadow which follows the same physical rules as light itself.¹⁶ If the shadow is cast by an object which is visible to the audience, then this object's sphere of influence is extended along the shadow. If the reason for the shadow is hidden from the audience, then its influence is ascribed to the universe outside the action of the play.

The second quality of the boundary of dramatic space is the permeability of the boundary. Permeability is a measure of the

ease with which the boundary is crossed. This quality is determined almost completely by the lighting on open stages. Within the confines of a proscenium arch the scene designer exercises considerable control over this quality of space in his design for containing the stage space, although alterations within a scene must still be carried out with the lighting. On an open stage, however, the walls themselves are defined of the limits of the lighting.

There seem to be two factors involved in the permeability of a wall of light, whether this wall represents a wall of the set or merely an internal division into dramatic spaces. The first, and most obvious, factor is the rate of change from one side of the boundary to the other. Remembering that we are dealing with a four dimensional dramatic space, this can involve the speed of a dim, the softness of the edge of an area of light, or the amount of difference in intensity or color between two areas. Generally, the more rapid the transition the lower the permeability of the boundary. The lower the permeability of a boundary the greater the conviction required of the actor to cross it and the greater the shock to the audience when it is crossed.

This aspect of the permeability of the boundary of dramatic space in a finer scale becomes synonymous with the plasticity of the lighting. Plasticity is an indication of the lighting's ability to reveal three dimensional forms, and is determined by the relation of light and shade on the object.¹⁷ Totally even lighting is flat; there is no revelation of form because there is no resistance from the universe to any change in the object's shape. If the object is

lighted sharply from only one direction its form is sharply revealed but the eyes tire quickly from looking at the object. Here the conflict between the object's shape and the surrounding universe is violent. The best lighting for revealing form lies somewhere between these two extremes, and achieving this lighting is one of the major concerns of the artist in lighting the object.

Technically, the rate of change at the boundary is determined by the speed of the lighting cue. The rate of intensity variation is a function of the dimmer readings. Color variation can be governed by the selection of the color for adjacent areas. Even shadows can be colored on the stage by the use of more than one light separated by a small angle.¹⁸

The second quality involved in the permeability of a boundary is the psychological effect of the reflection of our own feelings from the boundary. This factor is controlled by the occupant of the dramatic space, and the lighting can only enhance or diminish this effect through the factors listed above.

The final quality of the boundary of dramatic space which the lighting of that space defines is the texture of the space itself. This texture permeates the entire dramatic space. Texture is the only element over which the occupant of the space has no control. It is "the imposing of quality on the scarcely visible air through which objects and people are seen,"¹⁹ and it is the sole province of the lighting designer. Even in everyday life light appears to create the quality of the air surrounding us.²⁰

The major means of controlling the texture of the dramatic space is through the color of the light applied to it. The psychological reactions to color are highly personal and cannot be accurately defined.²¹ However, there are general reactions to color which can be used predictably by the designer, and these require the artistic application of colored light from the correct angle in the proper context.

The colors that are predictable are colors like that of an overcast day, or the color of the inside of an old country general store. These are colors of air, not wave lengths of light. This is the texture of the dramatic space, the atmosphere in which the action takes place. This is not the same thing as mood, which is a symbolic quality imposed by man. The atmosphere within the dramatic space is the proper lighting for that space, as it would be found outside of the theatre. It is the complete light for that space, creating a living space around the actor which links him with his surroundings.²² It lacks only the selective visibility function, which the designer must provide, of being the complete theatrical lighting for the situation.

The texture of dramatic space within the theatre is determined through lighting by recreating the visual conditions which would exist within that volume of space if it were in its natural setting. A lighting design requires a reason in nature, a motivation, for every light source and having a theatrical reason for the same sources. "As the theatre is using the human being as a yardstick, and the human situation as the usual basis of its drama, so in theatrical lighting,

natural light is the yardstick by which the audience will (subconsciously) react."²³

The concepts for establishing dramatic space--the control of its size and shape, establishing the permeability of its boundaries, and recreating the texture of the space--must be applied to what Jean Rosenthal calls the "dramatic intention of a particular moment" of the production.²⁴ Each of these moments must then be combined into a unified whole which cooperates with the other elements of the production and ties them all together. The result of this combination is a lighting design which defines the dramatic shape of a production. The design must always aid the other elements to present the total dramatic idea of the production, but it must never intrude upon the consciousness of the audience.

The concepts expressed in this chapter will result in entirely different specific solutions for most productions to which they are applied. However, they do indicate a common design procedure that is based on the development of a thorough understanding of the dramatic space required by a production on an open stage. The use of this design procedure is described in the last chapter of this thesis as it was applied to a production of The Serpent performed at The University of Tennessee.

CHAPTER III

DETERMINING DRAMATIC SPACES ON THE OPEN STAGE

The Serpent, by Jean-Claude van Itallie, was performed from February 21 to March 3, 1973, at the Carousel Theatre under the direction of Thomas P. Cooke. This production was based on the script published by Dramatics Play Service Incorporated. The order of events in the script was followed, but the ceremony itself was created anew by the actors during the rehearsal period. The dialogue in the script was used where convenient and altered where necessary to fit this particular realization of the ceremony.

This method of developing a play required that the lighting concept be developed as the production developed, instead of being drawn from the script early in the rehearsal period. From occasional attendance of early rehearsals a feeling for the mood of the ensemble in this production was derived. This feeling was carried into the basic concept for the lighting. Since the mechanics of a light plot require time to accomplish and time is required for the training of an operator, a point in time must be selected when the basic concept is crystalized, after which no changes can be made in it no matter how the production may change. This point was reached for The Serpent two weeks prior to opening. At this time rehearsals were taking place on the platforms of the set, and most rehearsals were runthroughs with only minor changes.

The set for this production, designed by Mr. Robert Cothran, consisted of a raised platform in the form of a three pointed star radiating from the center of the arena, as shown in the Appendix, Figure 1. Over this was stretched a macrame of three quarter inch rope, shown in the Appendix, Figure 2. This rope work served to echo in finer detail the basic structure of the platforms. The ceremony took place on and off the platform and around and amongst the ropework. Taking advantage of the architectural freedom afforded by the arena arrangement, the action moved out the aisles and around the corridor surrounding the audience. The actors always returned to the center, however, until their final exit following the curtain call.

The central feeling of this production was one of confinement and release. The action was confined by the setting between the platforms beneath the actors and the rope network above them. The action was further constrained by the vertical members of the macrame. The macrame was permeable, however. The actors could easily pass between the vertical ropes, and even climbed above the rope canopy surmounting the stage. The platforms themselves included a trap, theoretically allowing the actors to pass beneath their level. The aisles allowed horizontal freedom of motion.

Two weeks prior to opening, when the lighting concept was crystalized, the ceremony proceeded in the following general manner. Before the performance began the actors slowly gravitated to the locations they had selected for the on stage warmup exercises. Some actors were located in the corridors of the theatre, some in the

spaces between the platforms on stage, and some on the platforms themselves. As the actors reached their chosen locations they began to warm up in whatever manner best suited them. At this point the ensemble formed an unorganized group of actors filling the entire theatre space. This group evolved an organization and came together on the platforms for the Americana sequence. This sequence took the form of a closed loop snake dance confined to the three arms of the platform and was the equivalent, in this production, of the Procession called for in the script. The Americana sequence was composed of five parts, with a grab bag of words, sounds, and sentences from the ceremony interspersed. At the conclusion of the fifth part the actors performing the Autopsy sequence condensed in the center of the stage and the remainder of the ensemble faded off of the platform to provide sound effects from the outskirts of the action. As the Autopsy broke up the entire ensemble joined in a concentrated rush down aisle one and out the other arms of the platform, carrying the autopsy victim on their shoulders and dropping off the actors for the Kennedy Assassination sequence in their correct places as they passed. The rest of the ensemble left the platforms and became the crowd in the spaces between the platform arms. Immediately the count was begun and the Assassination was played out.

The second time the random number called out by the guard at the end of the Assassination sequence was "One" the Assassination sequence was ended and Creation began with a choral sound and a spiral motion into the center of the platforms. For the Creation sequence, the ensemble formed a tight mass at the center of the stage,

built the sound to a crescendo, and then expanded outward into the corridor, leaving most of the actors in position on stage for the beginning of the Garden of Eden sequence. The rest of the actors reentered the garden as various animals as the Eden sequence progressed. The entire Eden section moved around the serpent, which was a five actor subensemble fixed at center stage. The serpent made use of a complete freedom of motion with the one stipulation that some part of each member had to be located center stage at all times. The result was an amoeba like center with the rest of Eden taking place surrounding it.

The Eden sequence ended with a transition into the Curses sequence. As the Curses sequence progressed the actors moved outward, up the aisles, and into the corridor behind the audience. When the last of the curses had been spoken the actors began to babble the curses behind the audience and to run down the aisles, along the platforms, and out other aisles in a frenzied manner. As the congestion in the center increased, collisions occurred and people were forced off of the platforms, extending the pandemonium to fill the entire stage. Into this confusion the four women who would become the chorus for the next two sections entered in an organized manner. As they entered, the rest of the actors fell silent. They opened the trap in the center of the platform, stood around it, and began their lines with "In the beginning" ²⁵ First the attention of the actors was drawn to the four in the center, then the actors were physically drawn toward them. This movement continued throughout Statements I until all of the ensemble except

the chorus was in the trap. The movement was completed when the chorus began the actual lemming statement with "On a certain day" ²⁶ With the conclusion of the lemming statement the ensemble left the trap and scrambled toward the audience, some stopping at the edge of the stage, and some going out the aisles. The chorus women closed the trap and walked out the aisles in a quiet and orderly manner. With the exit of the chorus, Statements I was concluded and the Cain and Abel sequence I was begun on the empty platform.

During the Cain and Abel sequence, the chorus spoke the dialogue from the aisles and the actors entered the stage as the story called for them. As the tension between the brothers increased, the six actors at the edge of the stage, each of whom had taken one of the loose ropes with him, increased the tension in the ropework above the actors portraying Cain and Abel. When Abel died the ropes were allowed to go slack, and Cain tried to bring his brother back to life in a cage of ropes. The six actors with the ropes wrapped these around the center area's fixed ropes, forming a coral around Cain from which he could not escape. These actors became entangled in the ropes themselves as Blind Men's Hell began. The rest of the actors, including the choral women entered this tangle of ropes and Statements II began. As Statements II continued the actors climbed the ropes, becoming enmeshed in the entire macrame of the setting.

Two weeks before opening the staging ended at this point in the rehearsal and the rest of the session was spent in a line rehearsal of the Begats. These were spoken in unison by the entire ensemble

and were of such complexity and rhythm that the cast was not yet able to work with them and accomplish the physical movement which the director desired. In the final arrangement of this section, worked out over the next week, the first third of the Begats were spoken as a tribal ritual, with meeting, mating, and birth portrayed to the rhythm of the verse. The second third was performed as children's game songs and taunts as the children grew through adolescence to marriage. The final third became a religious plainsong and devolved into the mumblings of the old people, who quietly die sitting on the edges of the platform. This concept of staging the Begats was known two weeks before opening, when the design was crystalized, but the actual staging had not been worked out by the cast.

The conclusion of the ceremony was to be a light song, sung by the ensemble after they were reborn as spirits following their quiet deaths. The ensemble was to procede, singing the song, out the aisles and around the corridor, so that the audience would be surrounded by the song. This was to be followed by a simple curtain call, which in its final form was a happy return through the center and out aisle one straight to the dressing rooms without stopping with the ensemble still singing. This solution was worked out after the two week crystalization point, and is mentioned here to describe the show as it actually appeared when it opened.

The cycles of containment and release were easily seen in the motion of the actors during the ceremony. From the beginning of the show to the Creation, the action took place in a slowly diminishing area. With the creation of Eden the action expanded and extended

completely out the aisles again. With the Curses, the action was pushed entirely out of the stage area. This was a form of negative containment, a constraint against entering a particular area. In Statements I the action was again brought into the center and squeezed into a small central space. This space was again released to quickly expand beyond the confines of the central stage for Cain and Abel. At the end of the Cain and Abel sequence the actors were actually confined physically by the ropes. In the Begats the ensemble was psychologically released through birth, only to discover that they were confined in a life with very strict limits and contained in a brief span of time, with no hope of escape from the laws of aging. Again at the end they were released, this time possibly as spirits, but in any event at least to the dressing rooms.

The emotional energy of the ceremony functioned like a damped oscillation beginning with the Creation. It was like a string being plucked which had been plucked many times before. The action of the ceremony before the Creation sequence was the coalescence of the actors, who before the warmups were free spirits unknown to the audience, through a series of memories into the tightly compressed ensemble which preceeded the formation of Eden. This compression exploded into the Garden of Eden. The very violence of this creation anticipated the coming of the Curses. The energy of that instant of creation required, as its result, something more complex and intricate than the eternal, idealic peace of Eden. As the outward rush of an explosion always leaves behind it a vacuum, the motion of the Creation

continued until the empty stage of the Curses section of the ceremony, to be filled again by the actors returning to be compressed into the trap. The space again expanded into Cain and Abel, only less violently, to be followed by a less extreme compression in Statements II.

With each oscillation, the emotional energy of the expansion was a little lower, the quiet which followed a little less peaceful, and the weight of wisdom on the returning ensemble a little greater. The Begats continued the oscillations. At the end of Statements II the ensemble was spread about the stage. With the meeting of Adam and Eve in the center of the stage, at the beginning of the Begats, the attention was again brought to focus on the center, and the energy level rose to a climax with the mating. The energy focus expanded again to fill the stage with the births and the growth of the children. The religious ritual returned again to the center, and the actors turned to face outward from the platform edges as they quietly died. After these deaths the actors rose again as free spirits, to leave the stage as they found it. The stage was again empty, as it was in the beginning, but the audience now shared the memories the actors carried with them into the Creation.

Like a single drop, cropped in the center of a cup of water, the ripples of the ceremony expanded outward, were reflected by the sides, and returned to the center again and again; but each time with decreasing intensity until the water was calm and quiet again. The mind of the audience held the memory of the ripples, however, and the cup was one drop fuller. The realization of the lighting concept for this show had to reinforce the action of these ripples in such a

manner that their full effect was transmitted to the audience without the audience becoming so aware of them that they became seasick. This required the definition of a pulsating dramatic space without the creation of a pulsating visual space.

The three technical aspects of the production: set design, costuming, and lighting; used the common motif of interconnecting, confining lines. The setting consisted of the three-armed platform and a webwork of rope. This was reflected in finer detail in the costuming, which consisted of macramed headbands and vests over leotards and tights. These vests contained the actors, but flexed and moved with them. The ropes of the set were flexible, but were often used to confine or enmesh the actors. The webbing of both the costumes and the set vibrated with the action of the ensemble during the ceremony, just as a spider's web vibrates with the action of anything that moves upon it. The image of the basic idea for the lighting of this show was crystalized as being that of the strong silk threads of a spider's web. The concepts of containment and release became embodied in the inevitability and the flexibility of that web.

The construction of this web was assumed to be the cause and effect relationships which brought each member of the ensemble to the point where they stood at the conclusion of the ceremony. Each cast member was considered as moving along a line as described by the chorus.²⁷

I no longer know the beginning.
I am in the middle.

On a line
 Between the beginning
 And a point toward which I chose to go.²⁸

Dramatic space in this production was shaped so that it forced its occupants to make a decision. It did not influence this decision beyond making it imperative that some decision be reached.

In the beginning
 Anything is possible.
 From the center
 I can choose to go anywhere.²⁹

The instant that a decision was made the dramatic space began enforcing the consequences of that decision.

But now the point
 Toward which I have chosen to go
 Has a line drawn
 Between itself.³⁰
 And the beginning.

The result of this process being repeated many times is the current human condition. The web, which was the basic idea for the lighting, was the pattern of lines drawn by these past decisions.

I have fewer choices now.
 Because when I change my direction
 The change can only start³¹
 From a line already drawn.

For the lighting design, the ceremony was considered as a single drop of memory falling to the center of this web, and the vibrations set up in the web which recreate the time when these decisions were first made. The ceremony is a view of the completed web, not the making of it. The inevitability of the decisions was insured by the knowledge in the audience of which direction was originally taken. The dramatic spaces could allow all directions, but they had to

reinforce the inevitable direction once the decision once the decision was made, and they had to require that all subsequent decisions were made from the new position.

With this overall concept crystalized in the designer's mind, the dramatic spaces for the individual sections of the ceremony were defined and unified into a whole which reinforced the overall concept throughout the production.

The show presented to the audience in the Americana sequence the feeling that this ceremony had been performed many times before by this ensemble. For the purposes of dramatic space, the idea of partial remembrance was extended to begin just prior to the show and to end with the Creation. The pre-show activities and the warmups were considered as the drop of memory condensing. With the Americana sequence it began to fall toward the web. The Autopsy and the Assassination were considered as specific intersections in the web illuminated by light reflected from the drop as it approached the center of the web. These sections seem to move backwards in time proceeding from an autopsy, to an operation for a gunshot wound, to the assassination, to the live words of Dr. Martin Luther King. This tended to move the attention backwards, toward our origins at the center of the web. The end of the Creation section was considered to be the impact of the drop at the center of the web, and the rest of the ceremony was the vibration expanding outward from this impact.

The conditions of the first part of the ceremony, in order to express the concepts discussed above, required a single dramatic space encompassing the entire ensemble and bringing them slowly together. As

is true in almost all cases, the techniques for establishing the proper dramatic space were selected to match the internal conditions of that space. This will usually be true because the actors are the prime concern of the dramatic space and because their blocking is usually set and any attempt to alter these conditions will be detrimental to the production. If the technical elements of establishing the dramatic space have been considered when the blocking was being worked out, as they were in this production, there should be no trouble at this point.

The Autopsy and the Assassination were fragments of action which occurred during the formation process which the ensemble went through in the first part of the ceremony. For this reason they required separate dramatic spaces of their own. The general dramatic space, in the process of collapsing, needed to establish the particular spaces for these fragments. This required that the condensation be unhomogeneous, that the ensemble's encompassing dramatic space become denser in localized areas as it drew the actors together.

The Autopsy required a space which would represent an operating table large enough to hold the victim and strong enough to keep her convincingly pinned. This needed to be surrounded by a larger space with softer walls to serve as a demonstration operating theatre. It had to include the audience as outside observers, but not include them in the action. The audience had to be aware that it could look but not touch as the techniques were demonstrated by the doctor.

This space had to meet but not quite overlap the space for the Assassination as the time proceeded backwards. The Assassination

space itself had to represent the solidity and exposed nature of an open car. This had to be distinctly separated from the dramatic space of the spectators, who were not involved. The spectator's space needed to be somewhat amorphous. It needed to join somewhat the space occupied by the audience but not so much that there would be no difference and the audience would feel accused. The solutions to these needs of this production were found in the following manner.

The early dramatic space needed to cause a concentration and a condensation of the ensemble. Because this occurred outside the events of the web, it was important that this space not force the action, but merely aid in its development. The preshow lighting was designed to be a projection of the Oroboro which would fill the entire stage. This effect was to symbolize the name of the play, to indicate its cyclic nature, and to prepare the audience for the symbolic content of the ceremony.

The space for the warmups needed to be completely free and to contain all possibilities. It needed to be a strong dramatic space from which could be drawn the elements for the rest of the ceremony. It needed to be the very stuff of creation. It also needed to begin the process of condensation and to begin the tendency to move toward one localized spot. For these reasons it was lit in such a way that it would resemble a picture of interstellar space and the theoried creation of stars and galaxies as might be found in an elementary astronomy book. It was designed to begin with a stage filled with unorganized white blotches of light separated by dark shadow. The blotches were formless and composed of white light, which

contains all other colors. From this could be created anything. This light was to slowly fade into existence, replacing the projection, as the ensemble began to enter. As the warmups continued into the Americana sequence, this light was to fade into three localized areas of blotches, each centered over one arm of the platform and each colored in a slight displacement from one of the primary colors. This began the formation of something from the void, and the separation and condensation of what would become the ceremony of The Serpent. It also began localizing the attention of the audience both by the symmetrical placement of the galaxy shaped groups of blotches and by the spiral shape of the individual groups. These early patterns are shown in the Appendix, Figures 3 and 4.

This light continued its slow change through the first four parts of the Americana sequence, aided by a small amount of general fill light on the platform to soften the shadows. In the final section of the Americana sequence an intense beam of light, as might be produced by an operating room light, was faded up in the center of the stage as the spiral blotches were faded out. This completed the localization and the concentration of the space. The space had been amorphous and of a coarse texture made three dimensional by the reflection of the light from the actors as they moved. This space had condensed and refined itself unhurriedly, and had now formed an operating room in the center of the stage, extending porously outward but containing a firm edged operating table upon which the actors performed the autopsy. The floor areas for this and the next space are shown in the Appendix, Figure 5.

As the ensemble broke up and prepared for its sweep across the stage, which set up the Assassination scene, a hard rectangular area representing the car was brought up. When this was one quarter up the Autopsy special was started down at the same speed. The speed was governed by the movement of the action on stage, for the rate of increase in intensity in the car area was to be governed so that the boundaries were quite soft when the ensemble entered the area, but impenetrable to the four members of the ensemble who rode in the car during the Assassination. This light established the Assassination and moved the focus of attention in counterpoint to the motion of the actors, so that the audience's eyes came to rest on the stationary figures where the two motions passed.

At the midpoint of the Assassination scene, when the spectator's lines began to take precedence, the outer area was increased in intensity until its nearness to the audience caused it to take precedence. Prior to this time the actors portraying spectators along the outer edge of the arena blended into the background with the rest of the audience because they were as unlit as the audience. Using the least amount of light possible to accentuate the spectators made this shift gentle and allowed the actor portraying King to take the focus with a small increase in the intensity of the central area. By fading the car at this point, the stage was left flooded with a low level of light and was ready for the compression into the Creation group.

The general lighting areas for this show are indicated in the Appendix, Figure 1. They consisted of three concentric rings centered at the center of the arena. These provided for the radial

motion required by the vibration of the dramatic space throughout the ceremony. The first use of this was made in the Creation. As the ensemble spiraled into the center of the stage the lighting was dimmed behind them. The edges of the rings of light were quite soft because of the fresnels used to light them. The fact that the ensemble did not attempt to penetrate the boundary at the outer edge of the light, however, made it appear quite solid and allowed the light to compress the dramatic space into the very center of the platform.

When this compression reached its tightest state it exploded into the Garden of Eden sequence. This explosion of the dramatic space was accomplished by performing the following sequence of events in the fastest time possible. The intensity of the central area was increased to maximum. The intensity of the next area was increased and when it was at about half level the intensity of the outer circle was increased, the Eden light was started up, and the central area intensity was started down. When the central area was about half down the outer circle was fully up, the Eden lighting was nearly at specified intensities, and the second circle was started down. As the central area reached zero the second circle passed through half intensity and the outer circle was started down. This trend was continued until only the Eden light remained. This entire procedure was intended to take place in two to three seconds.

This explosion of the lighting was intended to expand the dramatic space in an explosive manner, exhibiting the tremendous energy of the creation and also serving as the first vibration traveling

outward along the web from the very center which was first seen in the Garden of Eden. The Eden space was intended to give a feeling of enclosed safety as would be felt in a secluded forest glen in the spring by a young and carefree child. In the very center of Eden, which is also the very center of the web, there had to glow a tree and a serpent. These served as the first consequences of the decision made by the ensemble to form Eden, and as such were the center of the web and the beginning of the next expansion cycle. They also served as the focal point of mankind's first decision, and for this reason were the center of the garden. Another dramatic space was created in the very center of Eden and the stage by the mere presence of these two combined entities, the tree and the serpent. The universe side of this central space was designed to help its occupant, in accordance with the basic concept of reinforcing the consequences of the decision once made, and to aid still further in focusing the attention of the audience on this double entity.

The Eden light can best be understood by looking at Figure 6 of the Appendix. It consisted of a fresnel wash colored by variegated gell in yellow and green to give the impression of sunlight reflected from leaves in a forest. Goboed lekos were used from the other direction to represent the sunlight filtering through the leaves and branches of the trees. The dramatic space was assumed to exist in a glen of a forest with the apple tree growing in its center. The shadow of this tree was cast by a goboed leko placed to indicate a tree in the center of the platform.

The actors who created the tree were also the serpent and the central area was increased in intensity using the general lighting as the serpent became of greater importance. When Eve ate the apple this general light was spread in an expanding ring as her knowledge of the garden and its occupants expanded. This expansion was not as rapid as the Creation explosion but moved quickly out toward the audience so that momentum would carry it beyond the walls of the theatre. This change in intensity and color was sufficient to make the audience aware of a subtle change in the atmosphere, but not enough to make them wish to look for the source of the change. This caused them to unconsciously contribute the change to Eve and thereby to the apple.

The general light which entered the garden when Eve ate the apple was predominantly amber. This color changed the dramatic space of the garden from one of spring to one of early autumn. At the same time it caused the serpent's dramatic space to dissolve into the general space of the rest of the ensemble. There was no longer a difference in the spaces because they had all tasted of the apple and this common factor overshadowed all other considerations at this point in time. This also shifted the space of the ensemble from its central location by removing the strict circular symmetry of the spacial arrangement. This was in accordance with the basic concept that dramatic space in this production should react to decisions as soon as they were made. The ceremony had moved out along the web, it was no longer at the center but on a line between the center and a point

toward which a decision had been made, and all future decisions had to be made from that line.

The ensemble now existed in a common dramatic space which occupied the entire volume of the stage. This space had to become harsh and punishing to represent the universal forces of God for the Curses section of the ceremony. The ensemble had to be driven out of Eden by the force of the attack from the universe side of the boundary of their dramatic space. Since the audience watching the ceremony was assumed to be moving along the web with the ensemble, Eden had to be moved away from the vicinity of the stage even as the actors were being driven from it.

The feeling expressed by the ensemble during rehearsals of this point in the action was that of running uncontrollably until they realized too late that they had become lost from one another. A dramatic space for the curses, therefore, had to be a space in which one could conceivably become lost.

The lighting for the curses was based on one of the curses spoken near the end of the exodus from Eden.

Accursed, you shall glimpse Eden
All the days of your life.
But you shall not come again.
And if you should come
You would not know it.³²

The object was to make Eden slowly dissolve into a dramatic space which was hostile to the ensemble. This was accomplished by slowly fading Eden into a harsh wash of amber light. An amber was chosen that would produce a dry feeling following the lighting which had been used for Eden, and the image became that of a desert.

The amber wash specified one of the colors for the general lighting. In order to balance this color and achieve the color variation required by the rest of the play, a blue was required for the opposite color. At this point in the design procedure these colors were considered for all of the sections of the play to determine if they would be satisfactory. It was found that the use of a warm fill light from the center which would be complimentary to skin tone would allow these two colors to be blended effectively in all sections of the play. The general color for the lighting of the dramatic space of this production was therefore selected at this point. The specific gells used are indicated in the instrumentation schedule (Table 1 in the Appendix), and were selected with consideration of costuming, set color, and the fact that only street makeup was used in the production.

Statements I followed the Curses as the ceremony continued its way along the web. This section was very quiet and very lonely. The chorus of four women became very important at this time as the only verbal element in the section. They opened the trap and all of the other members of the ensemble are drawn into it to become lemmings. The chorus seemed to be disinterested spirits who demonstrated the lemming trap, and at the conclusion of the demonstration closed it up again.

The spaces called for by Statements I were a trap located in and above the trap in the stage floor. This space needed to be a small but inviting volume with boundaries which were easily penetrated when entering but forbidding in the reverse direction. This

space had to be attractive to the lost members of the ensemble, and for this reason a primitive fire pit in the desert night suggested itself. Because the director felt that this might be mistaken for a variation on hellfire, and because a relief from the amber of the Curses was needed, this idea was replaced by the concept of a watering hole in the desert of the Curses. It served to attract the actors, was refreshing when they first entered, and allowed them to realize slowly that they had become stuck.

To enhance both the attractive power of the central space and the feeling of loneliness in the members of the ensemble, the rest of the space on the stage was designed to slowly flow into the trap. This was accomplished by having the amber wash fade from the outer ring, then from the middle ring, and finally almost completely from the central area itself. The flow of this lighting was kept always just ahead of the actors as they moved inward, leaving them nearly in the dark and forcing them to pursue the light into the trap. This technique created a shrinking dramatic space outside of the trap area which was sufficiently different from any preceding space that it helped keep the audience from becoming seasick.

At the beginning of the ceremony the ensemble had been compressed until it had made the decision to form Eden, then the tension in the dramatic space near Eve had increased until she made the decision to eat the apple. Now the ensemble was growing tired, their decisions had had repercussions in the form of the serpent's temptation of Eve and the curses of God. With the lighting of Statements I they

were again being forced together to make a decision. Statements I closed with a presentation of the decision of lemmings to run and the inevitable consequences.

Cain and Abel required a dramatic space resembling an arena. There had to be two spaces overlapping on the stage, with Cain being the aggressive one and eventually becoming dominant. Cain's space had to be simple, however, because he did not know what he was doing. He killed like any other animal, without realizing that it would cause death. This concept combined with the basic concept of the lighting for the show the image of the spider presented itself. The fact that he later became trapped by his actions in Blind Men's Hell strengthened the use of this image still further.

The space for Cain and Abel had to begin gently, for Cain was originally gentle and Abel was even more so. Cain's space had to grow and destroy his brother's space, then continue growing to entrap Cain.

When the trap was closed, the lighting for Cain and Abel was simply faded up. This decision was much quieter, the ensemble had gained some wisdom. The eagerness had been subdued by a healthy measure of apprehension.

The lighting for Cain and Abel was the light of a simple sunny day in a treeless pasture. As Cain's anger and frustration increased a pattern of white light bearing the shadows of spider webs was imposed over the basic light (see Figure 7 of the Appendix), complementing the effect of the tensions being created in the rope macrame by the actors surrounding the action. As Cain realized that he had

caused his brother's death and began to realize that he was trapped, the general lighting was faded out, allowing the web images, compounded by the shadows cast by the ropes of the set, to fully define the dramatic space. Cain no longer existed in reality, the dramatic space now represented space within his own mind.

Blind Men's Hell took place in this webbed space and it served as a transition into Statements II. The visual image of Statements II was quite complex, so the lighting was made simple and restful. The blue area lights on the platform were faded in slowly, with only enough fill in the outer areas to soften the edge of the lighted space. The web projections were dimmed enough to provide a golden highlight on the actors and the ropes. This produced a very restful space which originated in the ropework and extended in all directions without boundaries, it simply faded into nonexistence as the distance from the ropes increased. At this point in the ceremony the words of the actors were allowed to fully take the stage. The voices seemed almost disembodied, emanating from the ensemble in the ropes rather than from individual people.

The space of Statements II was still within the mind, though no longer the mind of Cain. It was a space within the mind of a man who is resting after having weathered a very rough storm. This section ended with repeated signs which became the low throb of the chanted beginning of the Begats.

The spaces for all three sections of the Begats were considered to be parts of a benevolent but unswayable universe. The first section was considered in concentric circles. The central space was given by the universe to the Adam and Eve of the tribe for their first mating.

The second circle of space belonged to the rest of the tribe, and from this space they watched and mimicked the central figures. The outer circle was a buffer zone provided by the benevolent universe to shield the tribe from external danger. The lighting to produce this series of spaces was warm and graded gradually down in intensity from the center. The image used in the lighting was the campfire of the tribe at a time when life was good.

The second section of the Begats represented the growing up of children who were born in a short transition between the sections. During this transition the lighting was expanded to cover the entire stage in the warm glow of a school playground and all of the spaces melded into one. Control of focus was completely relegated to the actors and the atmosphere of the dramatic space was one of enfoldment in the completely benevolent universe. The transition from this section into the last of the Begats encompassed the marriages of the members of the ensemble. The couples separated in small groups and moved away from the center of the platform, and the lighting became gradually cooler as age crept in. This space was still benevolent, but time was a factor which could not be altered. The last of the Begats began as a religious ceremony somewhere between a plainsong and a response. As this section of the Begats began the ensemble slowly moved in toward the center to form a ring. A sundial the size of the ring was provided by a vertical projection which faded in as the ring was formed (see Figure 8 of the Appendix). This provided a special light for the congregation and completed the cool

aspect of the space. The image of the sundial was not discernable until the ring broke up and the members of the ensemble separated to sit quietly at the edges of the platform and die mumbling the last of the begats. The sundial, now alone in the center of the stage, slowly faded as the ensemble died. By lighting the entire stage when only the central areas were used, the sense of loneliness was increased.

The ceremony had now reached the edge of the web. The dramatic space had to be returned to its original condition and the ensemble released from the web. In the silence following the deaths, the stage lighting was gently returned to a warm tone. The ensemble responded and began disjointedly to sing the closing song. This picked up and became a happy choral presentation as the actors stood up again and danced and skipped out the aisles to sing behind the audience. The slow awakening which the director wanted in this scene was enhanced by the atmosphere of thawing which the lighting created.

The ensemble, still singing, returned from the corridor and proceeded across the stage to exit toward the dressing rooms in the general light. At this point the stage lights were crossed with the house lights, and the oroboro projection was to have been used to illuminate the stage and complete the circle. Technical problems with rebuilding the projector for this slide could not be overcome in time for its use in the production. For this reason it was replaced with a general fill of white light as part of the house lighting both here and at the beginning of the show.

This production was run on two boards; one having fourteen 2000 watt auto transformers, and one having four 3000 watt resistance plates. Neither of these boards had any scale markings. Because of this the operator had to understand the lighting design in concept rather than in dimmer readings. The operator had to create the lighting for each moment in the ceremony visually during each performance. For this reason the cues in this production consisted of a flow sheet summarizing the entire ceremony with the lighting conditions indicated throughout. This sheet included specific start and stop cues where possible, timings where practical, and shorthand indications of whole lighting arrangements. This sheet was made unalterable, with the director's agreement, one week prior to opening. During the last week before the production opened, with the aid of this flow sheet and many notes from the designer, the operators were able to learn the design sufficiently to recreate the lighting faithfully each night of the performance.

The ability of the operators to accomplish this is due to the experience of the master operator and the completeness with which they understood the show. This required their attendance at rehearsals until they knew the show as well as any other member of the ensemble.

When the lighting is used to define the dramatic space the operators take on the responsibilities of an actor. They must know the show by heart as the actors know their lines. They must know their lighting plot, which is the technical arrangement of instruments and circuits required to produce the conditions of the design (see

Figure 9 of the Appendix), as automatically as the actors know their blocking. Above all, they must remember that they are an integral part of the production, making a subtle statement, and that that statement must not get out of hand or become obvious to the audience. They must know this as thoroughly as a good actor knows not to ham.

Dramatic space is a four dimensional space which is completely definable within the theatre. The lighting of this space is a major factor in its definition and is influenced by both artistic and technical considerations. Once the type of dramatic space needed has been determined, arrangements for its definition can be incorporated in the lighting design. The realization of this definition is in the hands of the operator, however, and he or she must be of the same caliber as the actors on stage who complete the definition of the dramatic space.

NOTES

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³Sheldon Cheyney, Stage Decoration (New York, 1966), p. 80.

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⁵Erwin Fehr, "Images of Light in the Theatre," Theatre Crafts, IV (September 1970), 42.

⁶Willard F. Bellman, Lighting the Stage: Art and Practice (San Francisco, 1967), p. 207.

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⁸Tharon Musser, "Cutting Lighting Without Losing Concept," Theatre Crafts, III (November-December 1969), 18.

⁹David Thayer, "Planning for Lighting Control Systems," Theatre Design and Technology, number 1 (May 1965), 19.

¹⁰Thayer, p. 20.

¹¹Richard Pilbrow, Stage Lighting (London, 1970), p. 119.

¹²Cheyney, p. 123.

¹³Jean Rosenthal and Lael Wertenbaker, The Magic of Light (Boston, 1972), p. 39.

¹⁴Rosenthal, p. 3.

¹⁵Rosenthal, p. 4.

¹⁶Roger Morgan, "Single Source Lighting," Theatre Crafts, IV (March-April 1970), 13.

¹⁷Bellman, p. 220.

¹⁸Charles E. Williams, "Lighting for Isolation on the Thrust Stage," Theatre Design and Technology, number 16 (February 1969), 11.

- ¹⁹ Rosenthal, p. 3.
- ²⁰ Pilbrow, p. 11.
- ²¹ Stanley McCandless, A Syllabus of Stage Lighting (New York, 1964), p. 122.
- ²² Pilbrow, p. 14.
- ²³ Pilbrow, p. 20.
- ²⁴ Rosenthal, p. 8.
- ²⁵ Jean-Claude van Itallie, The Serpent (New York, 1969), p. 35.
- ²⁶ van Itallie, p. 39.
- ²⁷ van Itallie, pp. 21, 35, 44.
- ²⁸ van Itallie, p. 45.
- ²⁹ van Itallie, p. 44.
- ³⁰ van Itallie, p. 44.
- ³¹ van Itallie, p. 44.
- ³² van Itallie, p. 33.

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APPENDIX

APPENDIX

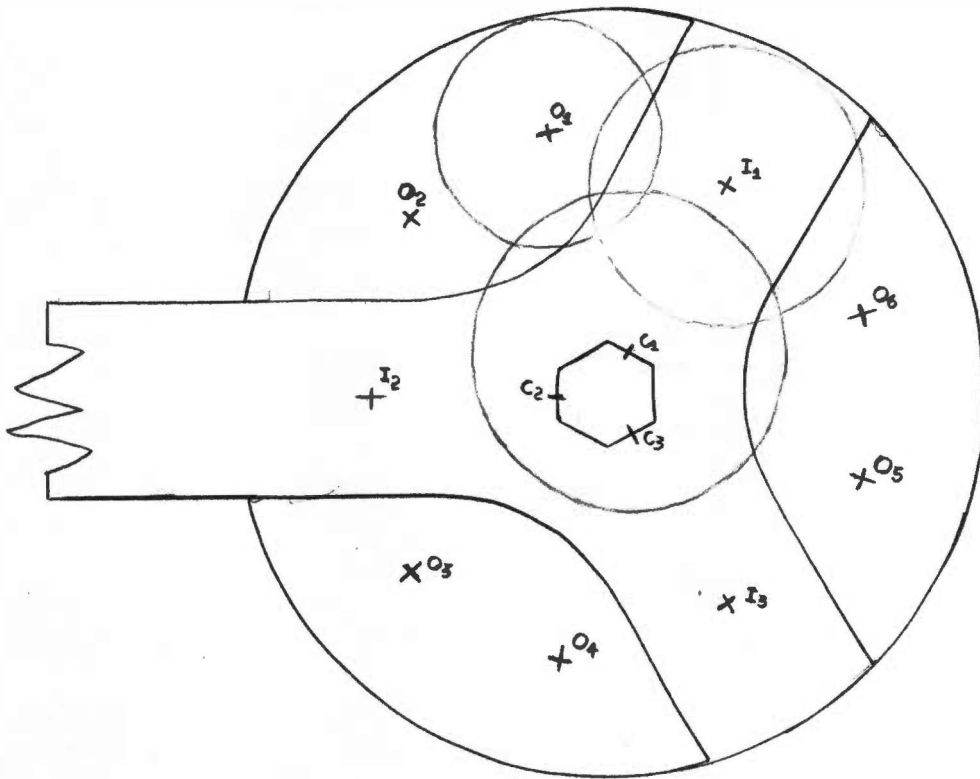


Figure 1. Floor plan of The Serpent with general lighting areas.

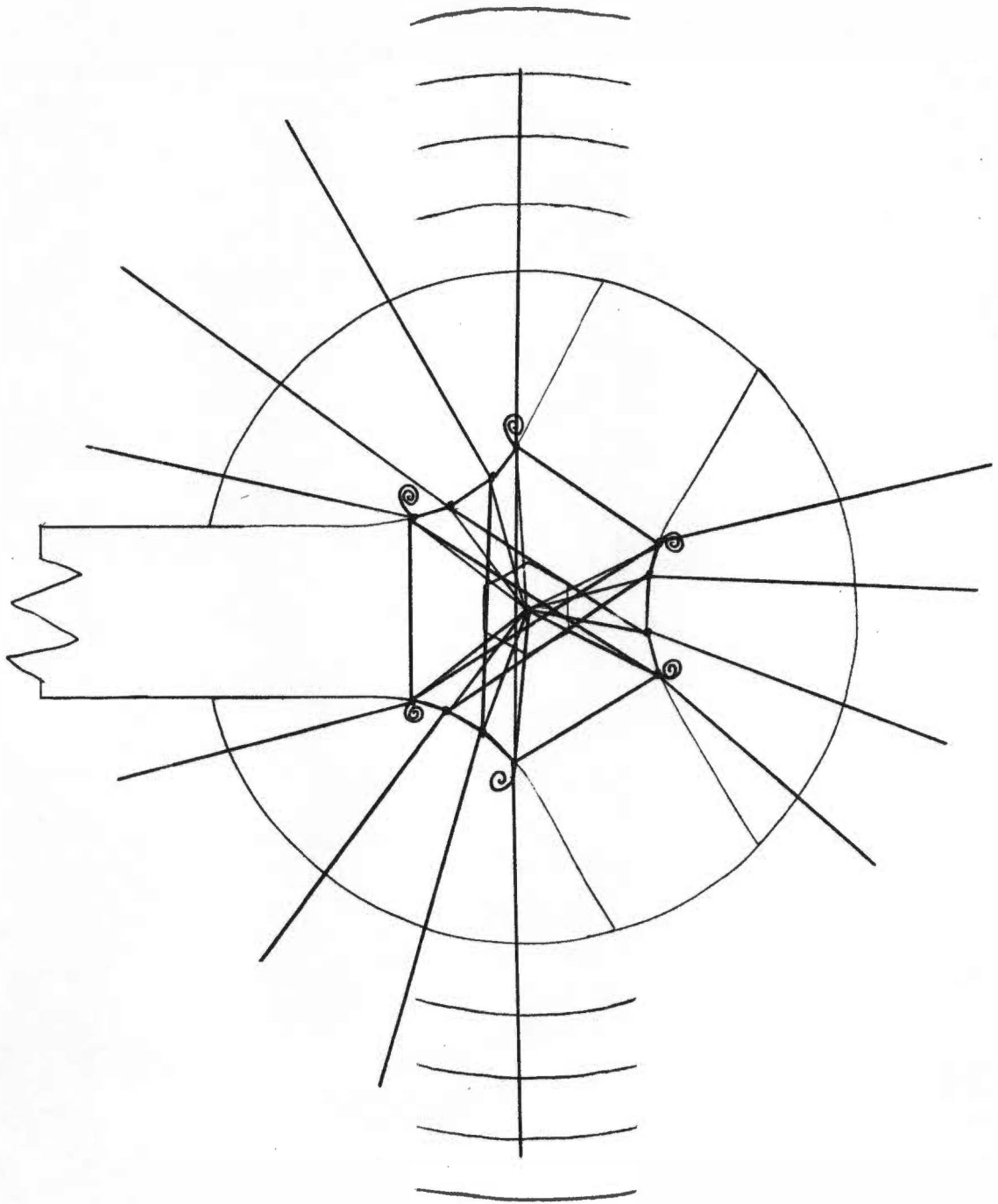


Figure 2. Rope macrame of The Serpent.

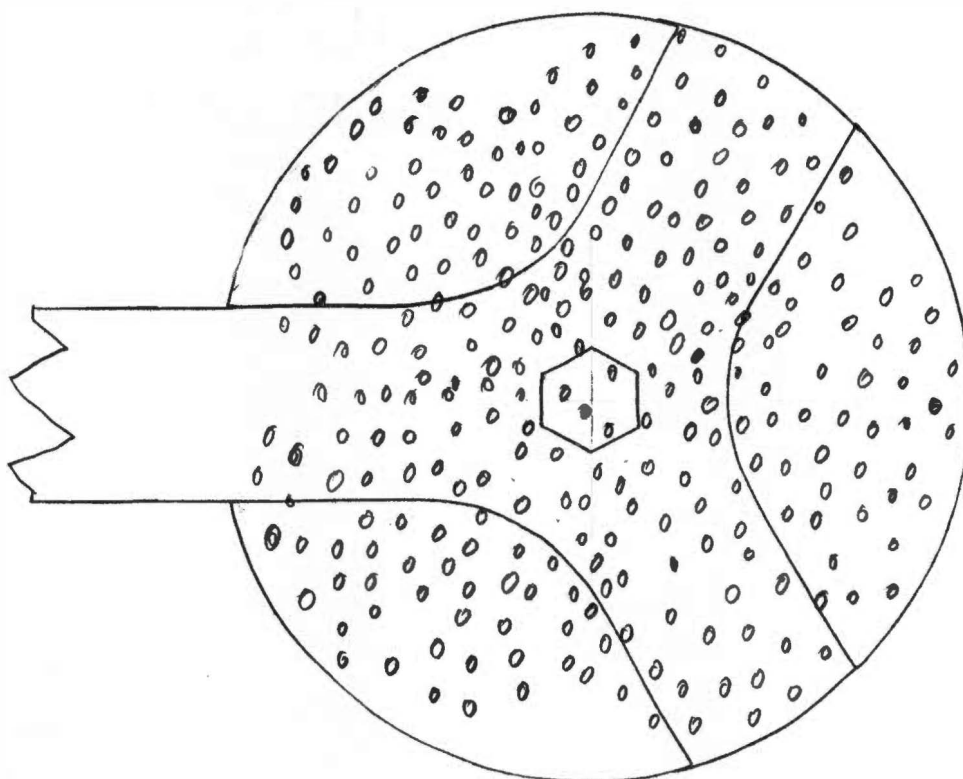


Figure 3. Plan of disorganized warmup lighting for The Serpent.

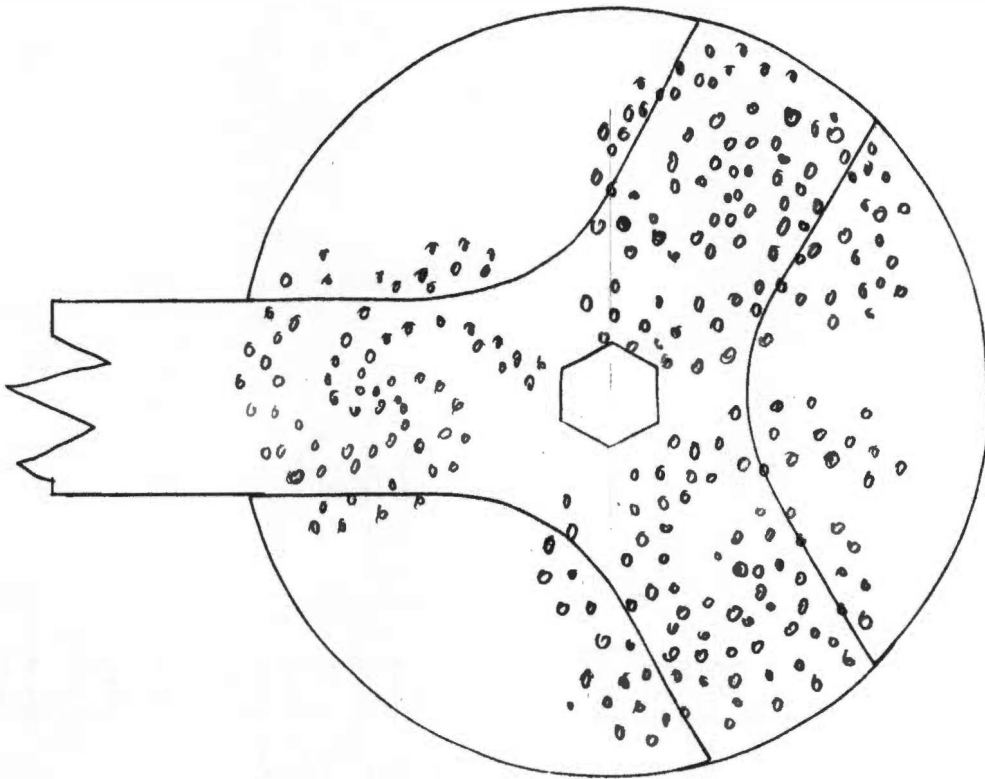


Figure 4. Plan of organized warmup and Americana sequence lighting for The Serpent.

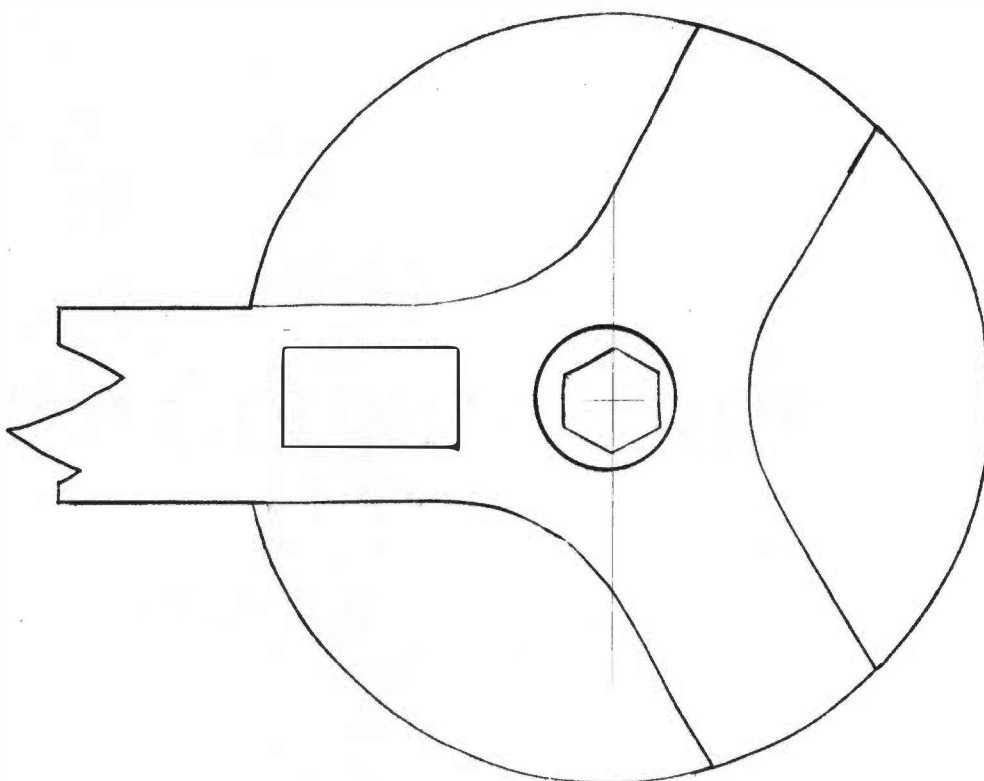


Figure 5. Plan of Autopsy and Assassination lighting for The Serpent.

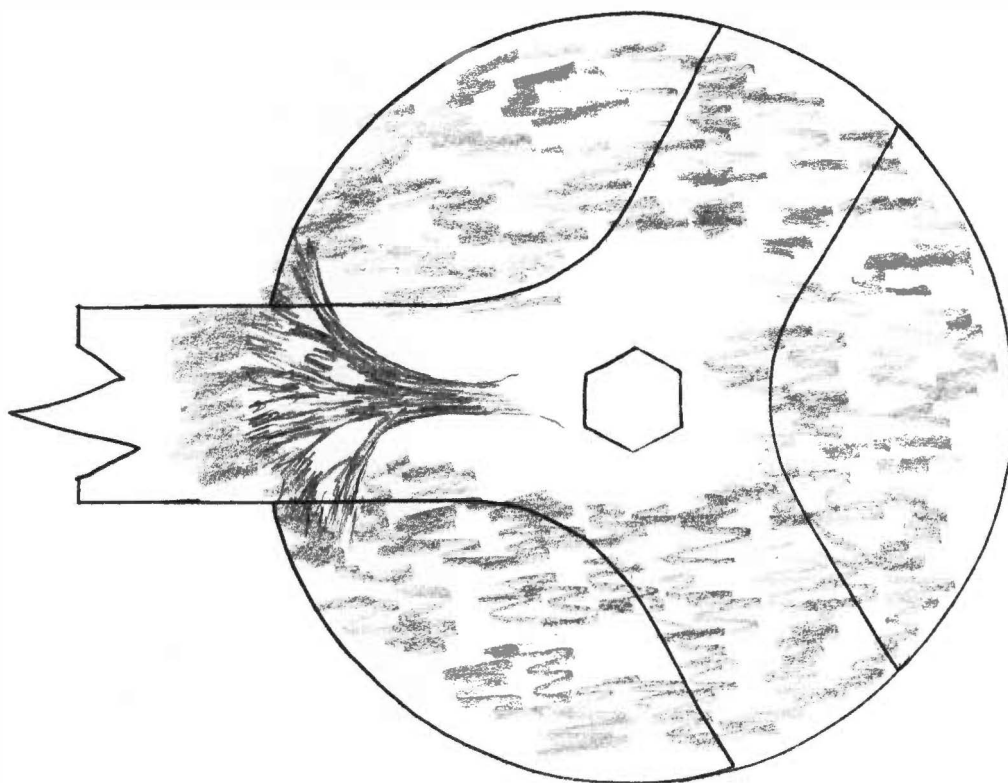


Figure 6. Plan of Eden lighting for The Serpent.

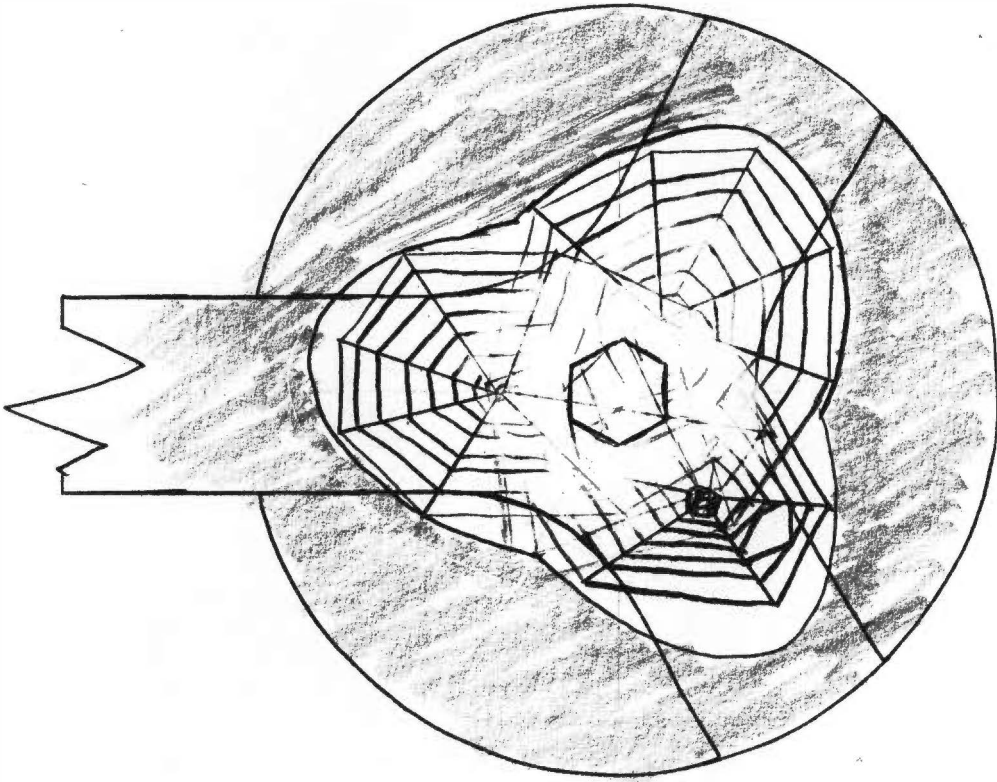


Figure 7. Plan of Cain and Abel lighting for The Serpent.

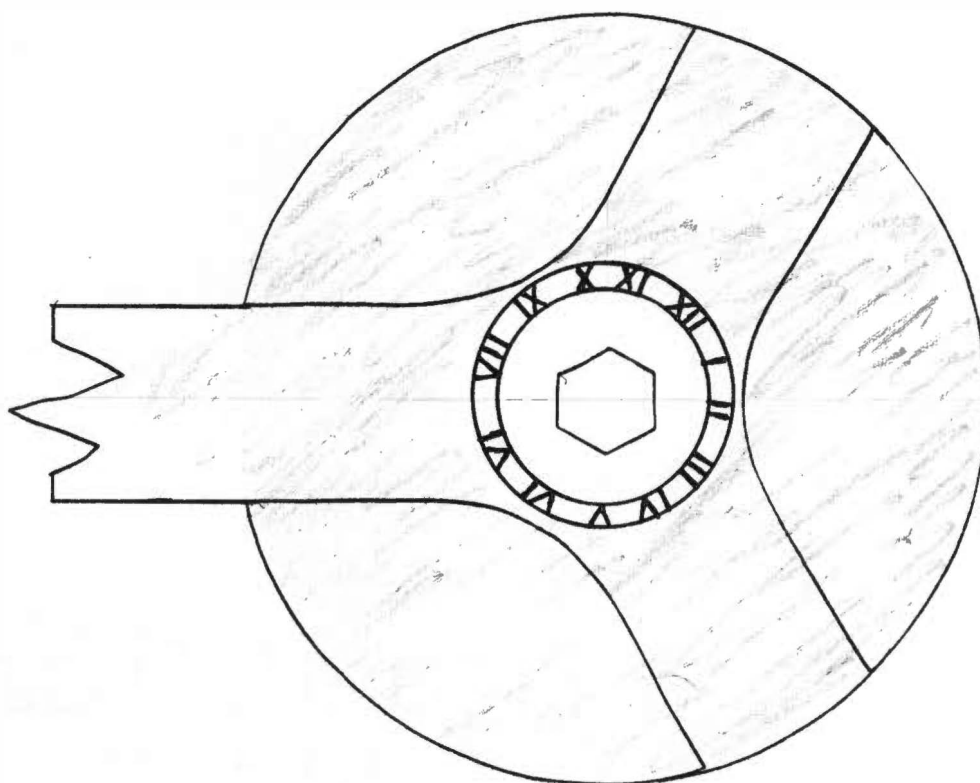


Figure 8. Plan of the Sundial for The Serpent.

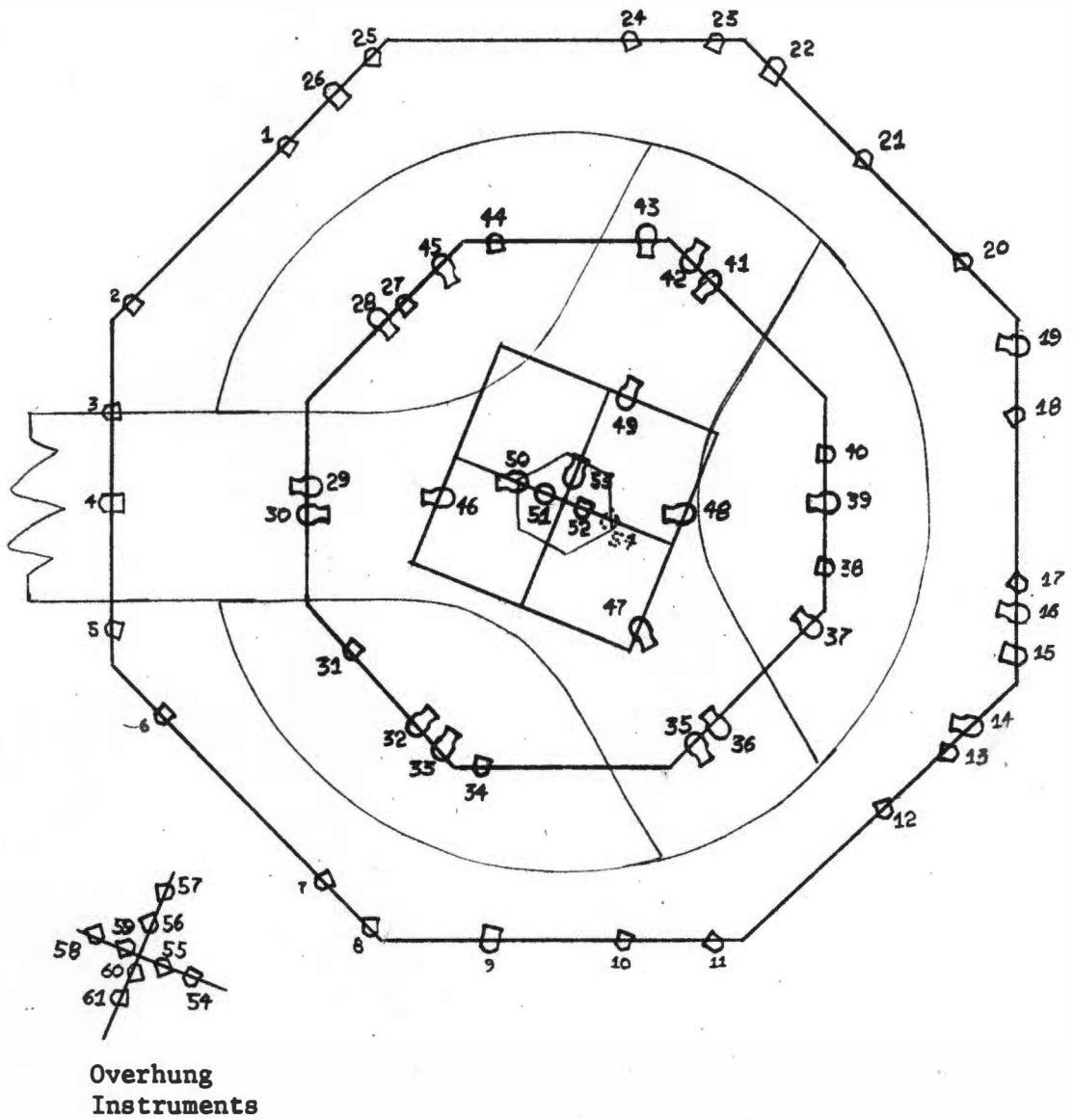


Figure 9. Lighting plot for The Serpent--plan view.

TABLE I
INSTRUMENT SCHEDULE

No.	Function	Instrument	Gel	Dim.	Notes
1	01 amber	500w 6" F	810/825	X1	
2	I2 blue	500w 6" F	850	3	
3	02 amber	500w 6" F	810/825	X1	
4	Eden wash	1000w 8" F	805/871	9b	remove 80% 871
5	03 blue	500w 6" F	850	X3	
6	I2 amber	500w 6" F	810/825	1	
7	04 blue	500w 6" F	850	X3	
8	03 amber	500w 6" F	810/825	X1	
9	Eden wash	1000w 8" F	805/871	10a	remove 50% 871
10	I3 blue	500w 6" F	850	3	
11	04 amber	500w 6" F	810/825	X1	
12	05 blue	500w 6" F	850	X3	
13	I3 amber	500w 6" F	810/825	1	
14	forest I3	500w 6x9 leko	804	12a	leaf gobo
15	Eden wash	1000w 8" F	805/871	10a	remove 20% 871
16	forest center	500w 6x9 leko	804	12a	leaf gobo
17	06 blue	500w 6" F	850	X3	
18	05 amber	500w 6" F	810/125	X1	
19	forest I1	500w 6x9 leko	804	13	leaf gobo
20	I1 blue	500w 6" F	850	3	
21	06 amber	500w 6" F	810/825	X1	
22	Eden wash	1000w 8" F	805/871	11a	remove 50% 871
23	01 blue	500w 6" F	850	X3	
24	I1 amber	500w 6" F	810/825	1	
25	02 blue	500w 6" F	850	X3	
26	Eden wash	1000w 8" F	805/871	11a	remove 60% 871
27	C2 blue	500w 6" F	850	5	
28	S1 down	500w 4 1/2x6 leko	no gel	9a	splotch gobo
29	aisle 2	400w 3" leko	802	X4	
30	S2 down	500w 4 1/2x6 leko	277	8a	swirl gobo
31	C2 amber	500w 6" F	810/825	4	
32	S1 down	500w 4 1/2x6 leko	no gel	9a	splotch gobo
33	I1 web	500w 6x9 leko	no gel	14b	web gobo
34	C3 blue	500w 6" F	850	5	
35	S2 down	500w 4 1/2x6 leko	228	8a	swirl gobo

TABLE I (continued)

No.	Function	Instrument	Gel	Dim.	Notes
36	aisle 3	400w 3" leko	802	X4	
37	S1 down	500w 4 1/2x6 leko	no gel	9a	splotch gobo
38	C3 amber	500w 6" F	810/825	4	
39	I2 web	500w 6x9 leko	no gel	14b	web gobo
40	C1 blue	500w 6" F	850	5	
41	S2 down	500w 4 1/2x6 leko	807	8a	swirl gobo
42	aisle 1	400w 3" leko	802	X4	
43	S1 down	500w 6x9 leko	no gel	9a	splotch gobo
44	C1 amber	500w 6" F	810/825	4	
45	I3 web	500w 6x9 leko	no gel	14b	web gobo
46	aisle 2	400w 3" leko	802	X4	
47	aisle 3	400w 3" leko	802	X4	
48	forest spoke 2	500w 6x9 leko	804	13	tree gobo
49	aisle 1	400w 3" leko	802	X4	
50	car	500w 6x9 leko	no gel	7a	
51	autopsy	1000w 10" beam	no gel	6	
52	I1 fill	500w 6" F	802	3	
53	sunfial	500w 6x9 leko	no gel	7b	sundial gobo
54	I2 fill	500w 6" F	802	3	
55	O3 fill	500w 6" F	802	X2	
56	I3 fill	500w 6" F	802	3	
57	O4 fill	500w 6" F	802	X2	
58	O6 fill	500w 6" F	802	X2	
59	O5 fill	500w 6" F	802	X2	
60	O2 fill	500w 6" F	802	X2	
61	O1 fill	500w 6" F	802	X2	
62	trap light	400w 9" scoop	855	8b	under trap
63	trap light	400w 9" scoop	855	8b	under trap
64	trap light	400w 9" scoop	855	8b	under trap

Note: Small letters in Dim. column indicate repatches. The letter F indicates a fresnel spotlight. All gels are Roscolene (800) or Roscogel (200).

VITA

David Kip Kriebs was born in Detroit, Michigan, in 1947. He attended elementary schools in that city and in Fairbanks, Alaska, and was graduated from Mainland Regional High School in Linwood, New Jersey, in 1965. The following September he entered The University of Tennessee in the department of Engineering Physics. From 1967 until 1971 he served as Lighting Designer for The University Theatre. In September of that year, he returned to school to complete the Bachelor's degree, receiving it in August 1972.

He entered the Graduate School at The University of Tennessee on a technical assistantship in the fall of 1972, and received the Master of Arts degree with a major in Speech and Theatre in August 1973.

He is married to the former Jan Mater of Knoxville, Tennessee.