ART DIRECTION AND SCENIC DESIGN FOR
A PRODUCTION OF SLEEP DEPRIVATION CHAMBER

A Thesis

Presented in Partial Fulfillment of the Requirements for
The Degree of Master of Fine Arts in the Graduate School of
The Ohio State University

By

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*****
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2003

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ABSTRACT

The creation, development, and refinement of new forms has been an important and major subject matter among many artists. As an artist, my concern is to find a new narrative form that can fully mirror this layered age of images and information in which we live. As the Art Director as well as Scenic Designer of Sleep Deprivation Chamber, I wanted to create one stimulating environment through which I could observe what this new form of performance can do. While delivering variant aesthetics at once, interdisciplinary visions were spoken in several different performance languages from software, video, animation, theatre, music, and video. This Master of Fine Arts thesis is the analysis and documentation of this Sleep Deprivation Chamber, the collaborative production between Advanced Computing Center for Arts and Design (ACCAD) and the Department of Theatre at The Ohio State University. This project can be viewed at http://www.accad.ohio-state.edu/~wlee or http://www.jazlee.com.
Dedicated to My Family
ACKNOWLEDGMENTS

I wish to acknowledge, above all, the support and generosity of all of the members of the production team of *Sleep Deprivation Chamber*.

I am grateful to ACCAD and the Department of Theatre at the Ohio State University for allowing me to have great experiences serving as an art director and set designer for this production.

I am obliged to many people, who lent their time and encouragement, including Dan Gray, Maria Palazzi, Mary Tarantino, Mark Shanda, Lesley Ferris, Matt Lewis, and Michael Franklin White.

Finally I must express my heartfelt appreciation to all my friends. I am especially grateful to my parents, for their encouragement, support, and thoughtful perspective.
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Specialty: Scenic Design

Related Field: Multimedia Performance, Computer Animation, Motion Capture
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CHAPTER 1

ADRIENNE KENNEDY AND ADAMP. KENNEDY AND
SLEEP DEPRIVATION CHAMBER

1.1 INTRODUCTION

Throughout history, there have been so many different ways in which theatre has represented the world. Understanding well known playwright, Adrienne Kennedy, the world in her plays, and her works gave me an idea of what a play can be in the postmodern era.

In her autobiographical book, People Who Led to My Plays, Adrienne Kennedy described her plays as "states of mind" and often showed racial, sexual, and religious themes drawn from her own memories and dreams. Adrienne Kennedy co-wrote Sleep Deprivation Chamber with her son, Adam P. Kennedy after incidents of racial profiling directed at Adam. It was written in a dream format, very imagistic and fragmented, delivering pounding images. As I started to work on the production Sleep Deprivation Chamber as an art director and set designer, I started my journey to convey Kennedy’s notion of visualizing "states of mind".

The production of Sleep Deprivation Chamber at The Ohio State University, was the first collaborative production between the Advanced Computing Center for Arts and Design (ACCAD)1 and the Department of Theatre at the Ohio State University. The interdisciplinary aspect of this production and the fact it was the first collaboration between these two groups aroused interests among many people. For

1 Established by Professor Jerritts Charles Court in the 1970s, The Advanced Computing Center for the Arts and Design (ACCAD) is a multidisciplinary center, located in the College of the Arts, which supports research that fosters innovative ties between the arts and sciences. For more information go to the web site, http://www.accad.osu.edu/accad.
this extraordinary project, many people across campus showed their support. Professors, professional designers, specialists, programmen, artists, and designers from different departments at OSU participated in creating a great performance experience for audiences.

In this chapter, I will discuss the authors, their works, the script and my consideration related to this script as well as the production of *Sleep Deprivation Chamber*.

1.2 THE AUTHORS AND THEIR WORKS

As the daughter of Cormell Wallace Hawkins and Eta Haugabook Hawkins, award-winning playwright, lecturer, and author Adrienne Kennedy was born in Pittsburgh in 1931. She grew up in interracial, middle-class Cleveland, Ohio neighborhoods of Mt. Pleasant and Glenville. As a sensitive young girl, she found the difference between the reality and the world in the books she read, and she described her neighborhood in Cleveland in her book, *People Who Led to My Plays*.

“Our immigrant and Negro neighborhood with its small frame houses or brick double houses with small square yards in Mount Pleasant seemed so far away from the romance of *The Secret Garden* or *Jane Eyre* that I began to read even more to connect myself with” (Kennedy 96).

Later, she received her B.A. from the Ohio State University in 1953. She described her one of her early encounters with discrimination at the Ohio State University: “The irony, the dark, rainy winters, the often open racial hatred of the girls in the dorm continued to demoralize me”. She wrote that she lost her “equilibrium” at that moment. Also, she wrote about the injustice and dark reality she felt at the Ohio State University.

*Often from southern Ohio towns, they were determined to subjugate the Negro girls. They were determined to make you feel that it was a great inequity that they had to live in the same dorm with you... an injustice. This dark reality was later to give great impetus and energy to my dreams* (Kennedy 69).
After her college life, she continued her journey to find her own identity and voice. She married Joseph C. Kennedy with whom she had two sons, Joseph Jr. and Adam. Her husband, Joseph Kennedy was involved in various developmental efforts in West Africa in the late 1950s and early 1960s.

Most of Adrienne Kennedy's stories considered issues of self-knowledge, identity, and a desire to unite a self that was fragmented by opposing forces (Olausson 109). She talked especially about black American females and their black female identity. One interesting discovery related to her identity was that Kennedy’s grandfather was a wealthy white peach farmer, and it was not hard to notice this influence in the direction of her work. The characters in her plays were often light-skinned black women struggling between their blackness and whiteness. Her direction toward multi-racial plots and ambivalent attitudes toward blackness within her works made many main players in the Black Arts Movement (BAM) deny considering her a part of the Movement, even though Kennedy was one of the major black female authors who affected the Black Arts Movement. Her works, however, showed clear influences from the BAM including neo-African aesthetics, attention to locale of performance, adoration of everyday African-American experience, and consciousness of pan-African politics (Meigs 173).

While she was traveling in Africa in 1961, she was impressed by an African mask and she often used the mask as a traditional symbol of power and mystery as well as an image of imprisonment and terror. Trapped is a mask’s impersonality, many of her characters could not discover themselves completely or run away from their own sickening selves (Meigs 173). Also, Kennedy was influenced by Federico Garcia Lorca's symbolic plays, the cadences of the psalms, the poetry of jazz, French surrealism movies, Picasso’s Guernica and Jackson Pollock’s abstract paintings among other things which she articulated in her writing.

In *People Who Led to My Plays*, Adrienne Kennedy wrote: “My plays are meant to be ‘states of mind’”. Indeed frequently the characters and images that appeared in her plays were from the mythical and historical past, and often from her
memories and dreams. Linda Kintz described that Kennedy’s
highly complicated plays introduced students of drama to experiments in
dramatic form, decentered subjects, and postmodern fragmentation that unfailingly
indict the symbolic workings of racism and misogyny. There are few North American
playwrights who have brought together a study of the symbolic construction of racism
and sexism so powerfully. (Brue 166)

After moving to New York, she studied creative writing at Columbia
University (1954-1956), America Theatre Wing (1958), and later with Edward Albee
at Circle-in-the-Square school (1962). She taught creative writing at Yale University,
Princeton University, the University of California at Berkeley, and the University of
California at Davis. Her plays included Funnyhouse of a Negro, June and Jean in
Concert, A Movie Star Has to Star in Black and White, A Raisin Mass, The Owl
Answers, Motherhood 2000: Electra and Orestes (adaptation), She Talks to
Beethoven, An Evening with Dead Eves, A Lesson in a Dead Language, Ohio State
Murders, and The Lennon Play. Funnyhouse of a Negro was written while Kennedy
was traveling Africa in 1961. It opened off-Broadway in 1964 with great success and
won an Obie Award. Kennedy received many fellowships and grants including the
Guggenheim, Rockefeller, and National Endowment for the Arts. Most of her plays
were produced in major theatres of the United States and Europe. She published
collections of her plays, Adrienne Kennedy in One Act (1998) and The Alexander

Adam P. Kennedy was born in Rome, Italy, when Adrienne Kennedy was
twenty-nine. It was right after Adrienne Kennedy finished her play, Funnyhouse of a
Negro. Adam Kennedy grew up in New York City and attended Riverdale Country
School and Amherst College, where he majored in International Relations and
Journalism. He traveled in Europe, Africa, the Middle East and the South Pacific. He
is a writer and producer, and his multimedia production company; R.A.V.E.
(Revolutionary Alternatives in Video Entertainment) has specialized in children’s
programming, alternative education, and audio information systems. R.A.V.E has
produced shows for teens including Africa USA: The Connection in 1991; The World

1.3 THE SCRIPT

Sleep Deprivation Chamber premiered on the stage of the Public Theatre/New York Shakespeare Festival in 1996. Produced by Signature Theatre Company, this production was directed by Michael Kahn, with sets by E. David Cosier, lights by Jeffrey S. Koger, sound by Jim van Bergen and costumes by Teresa Scalet-Stein and Jonathan Green. It received an Obie Award for best new play.

Sleep Deprivation Chamber was based on the real events while Adrienne Kennedy was working on the play, The Ohio State Murders, her son, Adam Kennedy was beaten and arrested by a white police officer in 1991. Even though this made-up charge was eventually dropped and Adam Kennedy won a civil lawsuit, the impact and horror of this incident was still vividly alive in their script, Sleep Deprivation Chamber. Adrienne and Adam Kennedy delivered their story through the fictional counterparts, Suzanne and Teddy Alexander, the main characters of Sleep Deprivation Chamber.

Sleep Deprivation Chamber was composed in three scenes. Each scene is placed in different locales including the Antioch College Theatre Department and its backstage, the greenroom in Cleveland, and a hotel in Washington. Written in a dream format, this play followed a disjointed, non-linear storyline. Each scene was fragmented with interposed scenes such as the Hamlet rehearsals at Antioch College, The Ohio State Murders rehearsal, Teddy's remembering of the past, Suzanne's writing, and other dream scenes.
Lack of sleep can cause mood swings, anxiety, impairment ability to think clearly or remember details, induce feelings of paranoia, and in extreme cases cause hallucination. Creating the overall mood of anxiety, despair, and loss, Suzanne’s Dream Scenes and Memory Scenes contained nightmarish images of violence such as stabbing and disembowelment of Teddy’s body, crime tapes, family members, grotesque memories of her past, and Yorick’s Grave. Crossing from reality to illusion, and the past to the present, the mixture of Suzanne’s anger, despair, nostalgia, and incessant searching for a justice for her son, Teddy, was revealed in the form of dream.

Suzanne kept writing letters to a County Manager, Congressman, Governor Wilder of Virginia, and an Attorney Edelmstein. She continued her writings as if writing letters was the only way she could control the world around her. Like the ghost of Hamlet’s father, Suzanne seemed to be doomed to search for the justice for her son. As the Director, Lesley Ferris mentioned in her Director’s Concept Statement: the ghost of Hamlet’s father haunts both Hamlet and the eponymous hero, so too that ghost—seeking revenge? —unnit Kennedy’s Alexander’s sleep-deprived, nightmarish world. A sense of ghostliness, of haunting, of shadows is ever present.

I am thy father’s spirit/ doomed for a certain time to walk the night/ And for the day confined to fast in fires/ Till the foul crimes done in my days of nature/ Are burnt and purged away. (Shakespeare: Hamlet)

1.3 CONSIDERATIONS

Before I was assigned Sleep Deprivation Chamber for my Master of Fine Arts thesis production. I was already developing my own notion of creating a new narrative form. Ideally, I hoped to create a new style which could break further ground of the previous generation’s experiments with technologies and theatre by using the poetic aspect of technology and creating a non-conservative narrative form.

1See the director’s concept statement attached as the page, 87.
I started to experiment my notion through my animation, *Illusion* (see Fig. 1.1) and the course project for Digital and Physical Lighting (see Fig. 1.2). Dreaming about what Janet H. Murray sought, "In trying to imagine Hamlet on the Holodeck, then, I am not asking if it is possible to translate a particular Shakespeare play into another format. I am asking if we can hope to capture in cyberdrama something as true to the human condition, and as beautifully expressed, as the life that Shakespeare captured on the Elizabethan stage" (Murray 274). I adapted the plot of Shakespeare’s *Macbeth* in my personal animation, *Illusion*. This project became a good experiment of integrating theatrical contents and the new media.

![Image of scenes from *Illusion* animation](image)

*Figure 1.1: Scenes of the Animation, *Illusion**

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2 This is my personal animation based on Shakespeare’s *Macbeth*. Through this animation, I integrated the theatre design method into the animation and experimented adapting the theatrical plot to the animation.
Through the course, Digital and Physical Lighting, I could develop a good sense of collaboration working with people from different disciplines. Creating various projects under the supervision of Professor Maria Palazzi, and Resident Lighting Designer of the Department of Theatre, Mary Tarantino, students in this class needed to collaborate regardless of their background and specialty. This class ran for only a quarter, and I was able to gain valuable lessons and experiences. The work in this class became a touchstone for the extended production process of *Sleep Deprivation Chamber*.

Figure 1-2: The Final Project of the Course, Digital and Physical Lighting.

I had quite a range of challenges throughout the whole production of *Sleep Deprivation Chamber*. Most of challenges came from the roles I performed, the complexity and the size of this production and the nature of this production as the first collaborative production between ACCAD and the OSU Department of Theatre.

Like other art directors, I was responsible for the overall look, and presentation of *Sleep Deprivation Chamber* except for lighting and costume. Considering the multi-media and interdisciplinary aspects of this production, my biggest challenge was finding a common language among the production teams.
members. This joint production involved many members who were from different disciplines and backgrounds. The project team came from different functional working groups including theatre, animation, design, video and dance. This created various leadership challenges for me. It was hard to find a way to communicate with them by understanding where they came from while emphasizing the theatrical aspect of this production.

Another challenge was identifying the scope of work. What were we going to do? This was my concern in the early production process. I rarely had the benefit of a wealth of information from any previous production which shared the same characteristics of this production when I started Sleep Deprivation Chamber. The dimensions of work, such as time, cost, scope, responsibility, resources, and relationship to other activities were, therefore, estimated, developed, and changed while the production was progressing.

Also, the process of selecting the script, Sleep Deprivation Chamber, was not shared between ACCAD and the Department of Theatre. The Department of Theatre chose the script, Sleep Deprivation Chamber to celebrate the 50th anniversary of Adrienne Kennedy’s graduation from The Ohio State University and her forthcoming honorary doctorate. It was, however, arguable that this script was selected on its merits as a work that required the potential of ACCAD to visualize the play.
CHAPTER 2

THE PRODUCTION SITUATION

There was approximately one year between the opening of Sleep Deprivation Chamber and our first informal production meeting during which the production teams shared their basic brainstorming ideas. After meeting many times at ACCAD and in the theatre department, the final set design was presented with the entire computer graphics on March 31st 2003. Six weeks were available for construction in the scenic studio after which the set would be loaded into the Roy Bowen Theatre, five weeks before opening night. Technologies were also loaded into the Roy Bowen Theatre five weeks before the opening night.

Originally, the Roy Bowen Theatre was a 250 seat thrust style Theatre. Equipment included an ETC Obsession 2 Lighting console, 150 dimmers, stereo sound capabilities, single channel clear-com production communications, and backstage monitor system. The thrust stage had 34'-2" stage depth and 26'-3 1/2" stage widths. The stage height was 13 1/2" above the house floor and a fixed grid system was newly installed and the grid height was 16' above the stage floor. There was a loading door into the scenic studio which was 7'-3" wide by 7'-11" high.

4 See the timeline of the production at the page, 41.
5 See more information of the Roy Bowen Theatre at http://www.the.ohio-state.edu/facilities/level_2_facilities/spaces/roybowen.html.
The scenic studio is a 1,500 square foot shop space with a 48' wide paint frame. During the spring quarter of 2003, the studio was staffed by one full-time scenic studio supervisor, four part-time graduate assistants, and approximately thirty part-time undergraduate students who worked as part of their Theatre 220 or 205 courses. Their work in spring quarter was split between Sleep Deprivation Chamber and Fire Still Burns, a production in Thorber Theatre which involved a great deal of construction and which opened two weeks after Sleep Deprivation Chamber.

Due to the renovation of the Roy Bowen Theatre, the change of spatial configuration in the theatre was encouraged. The removal of the thrust stage was planned to happen right before the main construction of Sleep Deprivation Chamber. The strike of the stage was scheduled for March 13th, and planned to be completed by March 14th 2003. Fortunately, in addition to using the space without the original thrust stage, it was possible to rearrange audience seats since it was designed as a modular system. The seating units could be rearranged and reassembled. The Producer and Technical Director, Professor and Department Associate Chair, Mark Shimer and the Director, Professor Lesley Fern, and I had several meetings considering the audience seating configuration in the Roy Bowen Theatre. Since the Director had a clear idea of how to locate the audience, the rest of our meeting was more about the legal issues related to the entrance and exit of audience and the fire clearance. The final seating unit was designed to contain at least 200 audience members for the production.

The budget for the scenery was $2,200 and the props budget was $1,000. Lighting designer Mary Tarantino had a budget of $700 and Costume Designer Adam West's budget was $1,500. There was also money set aside for technology needs.

There were “Tech Test” and “Dry Tech” rehearsals right before the regular technical rehearsals. The “Tech Test” was basically for checking movie levels, moving lights functioning, projector and finally for checking functioning and communication of house based equipments. “Dry Tech” was done right before the first tech rehearsal. This was a cue-to-cue rehearsal without actors to test the overall
Figure 2.1 shows the pipeline of the production. Based on the workflow of the production, I worked between ACCAD’s Computer-Generated Imagery (CGI) team and the production team from the Department of Theatre under the Director’s direction. There was the Producer who executed the overall production process; the Director of Technology and Computer Control performed by Matthew Lewis, who orchestrated the output of ACCAD’s CGI team and created the interactivity between performers and CGI; and the Director of Technology and Live Integration performed by Katie Whitlock, who integrated all components including CGI, interactive

Figure 2.1: The Pipeline of the Production, Sleep Deprivation Chamber
technologies, performers, and other theatrical design elements including sounds and lights together in the performance space. Most of CGI was directed by Professor Maria Palazzi.
<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
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<tbody>
<tr>
<td>Chair/ Director of Theatre</td>
<td>Lesley Ferris</td>
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<tr>
<td>Producer/ Technical Director</td>
<td>Mark Blandie</td>
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<tr>
<td>Director of Technology and</td>
<td>Matthew Lewis</td>
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<td>Computer Control</td>
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<td>Director of Technology and</td>
<td>Kati Whitlock</td>
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<td>Live Integration</td>
<td>Walter Lee</td>
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<td>Costume Designer</td>
<td>Allen M. West</td>
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<td>Lighting Designer</td>
<td>Mary Tarrant</td>
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<td>Sound Designer</td>
<td>Sherry &amp; Skip</td>
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<td>Computer Animator</td>
<td>Dana Wilson, Jeff O'Shea, EJ</td>
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<td>Jenny Naco, Matt Ahnart</td>
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<td>John Kwon, Pamela Fries</td>
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<td>Video Asset Management</td>
<td>Hyun Jung-Chae, Charles Wilson,</td>
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<td>John Keung Lee, Eddy Kim</td>
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<td>Fran, Kalal, David Traugood</td>
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<td>Production Coordinator</td>
<td>James Slope</td>
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<td>Stage Manager</td>
<td>Eric H. McVay</td>
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<td>Assistant Stage Manager</td>
<td>Jeffrey Faicherty, Wendy Hoop,</td>
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<td>Justin Holowaty, Jamie Seely</td>
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<tr>
<td>Assistant Director</td>
<td>Steve Jackson</td>
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<td>Assistant Director of Technology/ Moving Lights Programmer</td>
<td>Sean McIlvain</td>
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<td>Assistant Lighting Designer</td>
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<td>Videographers</td>
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<td>Dramaturgists</td>
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<td>Prop Masters</td>
<td>John Fong, Kelly Cole</td>
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<td>Vocal Coach</td>
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<td>Set Design</td>
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Figure 2.2: Staff Members of the Production, Sleep Deprivation Chamber
CHAPTER 3

ART DIRECTOR'S CONCEPT

3.1 DIRECTOR'S VISION

Figure 3.3: Giotto di Bondone, The Mourning of Christ (1305)
During the early brainstorming meetings, the Director, the Lighting Designer, the Director of Technology, Katie Whitlock and the Director of ACCAD, Maria Palazzi, and I shared preliminary thoughts on Adrienne Kennedy and Sleep Deprivation Chamber. The Director acquainted us with resources to consider and books to read. She mentioned Adrienne Kennedy’s People Who Led to My Plays as a reference and suggested that we should consider Giotto’s color palette from the painting, The Mourning of Christ (1305) for the production. She quoted this paragraph from the book, People Who Led to My Plays:

Giotto:

By my mid-twenties the colors of life had shifted dangerously. I saw a great deal of trouble in people around me, people whom I loved. Friends, family told me their troubles, wept, were often bitter, said they didn’t want to go on. I tried so very much to go on.

One day I stumbled on a book of Giotto prints: the colors, the Violet blues, the magentas, and moss greens, watching my growing vision of the world. I cut out the prints, put them above my desk and tired to use the colors in my poems and stories.

The Violet blues, the magentas, and moss greens became the main color palette during the later production process (Kennedy 88).

At the production meeting, Professor Ferris presented her Director’s Concept that described the visual world of Sleep Deprivation Chamber in more concrete terms. She had a strong idea about what she wanted onstage. Her suggestion was quite descriptive. She wanted to have the image of a road and audiences seeing facing each other. Since the department was planning to renovate the stage of the Roy Bower Theatre, changing the whole seating configuration was something anticipated for this production. Both Professor Ferris and I agreed on making the space as simple as possible and decided to create more spaces for projections on which we will project images ACCAD’s Computer-Generated Imagery (CGI) team created. Professor Ferris discussed main character Suzanne Alexander’s disjointed dream and her obsession with writing. This led to a discussion about the logic of dreams and consequently we agreed that the quality of this play was like a mosaic, interrupted, disjointed, and segmented like dreams. She also indicated four significant elements of the play, Suzanne’s Writing, Teddy’s Remembrance, Dream Scenes, and The Trial Scene.
3.2 ART DIRECTOR'S RESEARCH OVERVIEW

After meetings with the Director and my readings, I started research for the scenery as well as other visual components. I turned to performance art, video arts, animations, and video installations by Teiji Furutashi, Gary Hill, and Bill Viola. I found Furutashi's 1984 performance at University of Arts, Kyoto Plan for Sleep #1 (see Fig. 3.2) was particularly evocative. The incongruently scaled miniatures and a tree, and abstract figures around a naked human body were laid quietly on the heavily plastered disc. It had a very personal retrospective, but yet detached, dreamlike and somewhat surrealistic quality which resonated with the world of Sleep Deprivation Chamber. This image seemed to reveal the secret of dream and its logic to me. I presented this image to the Director as a reference and suggested having a simple set that represented dreams and multiple consciousnesses. This image, Plan for Sleep #1, also prompted the Director to request miniatures to be used in the production.

Figure 3.2: Teiji Furutashi, Plan for Sleep #1, Performance at University of Arts, Kyoto, 1984
Later, my research continued and became more specific, focusing on the multi-media and interdisciplinary aspects of the production. Sleep Deprivation Chamber was presented as a theatre production in the theatrical setting; there was a given script, actors, audiences, lighting, sound, and scenery. This production, however, with its interdisciplinary aspect as well as the state-of-the-art technology involvement, stretched the boundary beyond traditional theatre performance. Acknowledging those aspects of the production, I started a broad range of research about newly adapted technology-based media to art as well as actual practices and aesthetics in art genres using emerging media. By relating the production, Sleep Deprivation Chamber, to the larger history of art movement, I could find the significance of this production.

The following sub-chapters were intended to describe the major issues of my research which directly and indirectly influenced my art direction and set design. These sub-chapters included Performance Art and Media, Video Arts, Animation and African American Arts.

3.2 PERFORMANCE ART AND MEDIA

Different from the theatre, performance art has approximately a 40 year history since its start in 1960s. As a medium of expressing an artist's concept, performance art was formed along with the art movements of the twentieth century, such as Conceptualism, Minimalism, and Dadaism. Even though many theories were generated since its beginning, the term performance art, was never strictly defined. It was due to performance encompassing a broad range of artists, and their activity used diverse styles, methods, and concerns. Taking advantage of this lack of definition, performance artists could experiment beyond the restriction and physical limitation of traditional forms (Batecock and Nickas x). Questioning the traditional medium of representation, performance artists experimented with space and time, and imposed media into their performance. All these performance artists opened themselves to all media and borrowed from traditional fine arts including the theatre and traditional
craft, and created new hybrid possibilities. Performance art affected many traditional
genres including the theatre. Many avant garde theatres showed a strong influence of
performance arts. After the introduction of performance-theatre among European
artists, the division between traditional theatre and performance art became blurred
(Galderg 198) Finally, theatre critics actually started to acknowledge this and to
cover performance art.

The following examples are intended to show how multi-media were used for
performance arts through its history. Choreographer, Deborah Hay’s Group One
(1967), painter, Carolee Schneemann’s Eye Body (1963) and Snow (1967), and a
sculptor, Joan Jonas’s Oed Lau (1968), Organic Honey’s Visual Telemetry (1972), and
Funnels (1974), examined the assemblage between human body and the actual
architectural element, the transferring technology through which audience’s motion
activated media elements, using camera and monitor as theatrical props and as
sculptural elements and altering the audiences’ perception by supplying reflected
action of the actual performance through the projection in the space (Rush 41-43).
The production in which featured the actual integration of 3D computer-animation
film and live stage action were presented by Robert Wilson and his collaborator,
Philip Glass. Through the production, Monuments of Grace, they controlled the
animated film with a computerized masterboard to create the; scenes crossing
between reality and illusion (Rush 61). With his idea of “spectatorship” and “physical
space”, Dan Graham’s experiment with viewing environment through Room with a
View: Environments for Video (1997) and New Space Showing Videos (1995) with
mirrored environment and video technology showed an example of viewers becoming
both the performer and the audience (Rush 64), Integration of live performance and
archival live video footage was presented through the collaborative work, The Eternal
Frame (1973), by T. R. Uthco and Ant Farm. They re-enacted the Kennedy’s 1963
assassination by “re-staging” of the event using projection archival footage (Rush 65).

Experimenting with his media-based theatre works, including Polygraph
(1990), Needle and Optium (1992), and Seven Streams of the River Ota (1996), Robert
Lepage, French-Canadian director, stated that "the theatre is implicitly linked to technology" and "there is poetry in technology, but we try to use it in a way that does not eclipse the action on stage" (Bush 7).

In the 1980s, performance artists who were raised on twenty-four-hour television, Hollywood B movies and rock 'n' roll" broke down barriers between so-called high and low art. One of important works was Laurie Anderson's United States. Premiered at the Brooklyn Academy of Music in February 1983, this production was on eight hour long, multimedia performance. Her multimedia stage production was consisted of thousands of slides, films and film clips. Images of maps, wild animals, astronauts, and other images projected over and behind the performers (http://www.pbs.org/art21/index.html).

This research gave me a great deal of inspiration during my early process. The way performance artists experimented with concepts of body, time and space by integrating media into their works, raised a broad range of new perceptions in me; moreover, recent high-tech dramas demonstrated a "media mentality" that prompted and sustained several approaches I intended to experiment with for Sleep Deprivation Chamber (Goldberg 195).

3.2b VIDEO ARTS

Research about performance arts showed how performance and other theatrical events were readapted in conjunction with video technologies and the combination of video and computer technologies. My research efforts, therefore, continued into the genres of video arts. Understanding the aesthetics of the video arts and its characteristics including theoretical experiments of time and space, and its practices as video sculptures, environments and installation were critical during the research process.
Since its early birth, Heinrich Klottz argued that video art truly started with Nam June Paik’s works, manipulated TV sets at Galerie Pannass in Germany and Vostell's 6 TV De-Colléges, exhibited at Smolin Gallery in New York in 1963 (Kloz 8). In 1960s, video arts finally accepted by other artists and a large group of audiences in the past ten years.

Heinrich Kloz also divided characteristics and possibilities of video into six categories including:

1. The continuous changing of the moving image.
2. The linking of numerous images and the dispersal of vision.
3. The unfolding of sequences of images over time.
4. Spatial Simulation
5. The immateriality of the images
6. The capability of the viewer to influence the image interactively (Kloz 8-9).

According to Kloz, with continuously changing images, the video arts make viewers focus on drama, narrative, or the various mutable forms rather than a presence of an art work which can be encompassed in one glance, so its emerging image sequences become a journey. By implementing spatial effects, video images also heighten the illusion of depth and lead audiences to the immersive environment. In addition to those characteristics of video arts described by Kloz, video has interdisciplinary aspect as a medium. Johannes Birringey in his book Media & Performance, argues that

video as a creative medium is not “medium-specific” but always and inevitably interdisciplinary, reproduction made the interfaces with all images and sound media - especially film and broadcast television-and communication systems, while gradually being assimilated into the widest range of institutional and domestic practices, and ultimately into the constructions of our collective memory/history (Birringey 145).
He continued to discuss that the information on video is a “process” blending various sounds and images together and this information can be reproduced, manipulated, and modified hitherto (Biringer 146). Understanding aesthetics and characteristics of video as a medium and adapting them practically and conceptually for the live production of *Sleep Deprivation Chamber* was my intention during this research process.

3.2 Animation

With the development of graphics equipment, computers became a new tool of artists and expanded the ways to create new art forms. Most traditional artists simulated three-dimensional surfaces through perspective, but with the computer, artists can think in three dimensions of the space and create art works in the dimension of time. Most of the successes of this computer aided imagery can be shown in the fields of animation, special effects in feature films, and live performances. Recent real-time processing technology achieved further accomplishments with its immediacy and spontaneity (Goodman 152).

By programming, computers can create complex objects which do not exist or are hard to capture with traditional filmmaking methods. After key frames are created, computer produces the frames in between and motion can be added to these objects. Ease of manipulating the movement of the camera and instantaneous coloring of the entire or selected frames are another strong function of computer animation (Goodman 152).

By 1976, the interactive computer graphics system was presented to the public by Charles Csuri, the founder of the Computer Graphics Research Group at Ohio State University (now ACCAD). This was a demonstration of his real-time film animation program on an IBM 1130 system. He named his work as an “interactive artwork” and became a pioneer in this field (Goodman 159). Csuri mentioned the interactivity of his work in a paper presented at a meeting of the Institute of Electrical and Electronics Engineers.
Realtime computer art objects are an intellectual concept which can be visually experienced rather than a finalized materialized object. This kind of computer art exists for the time the participant and the computer with the CRT display are interacting as a process. The art object is not the computer or the display, but the interactivity of both interacting with the participant...
Realtime computer art objects are a unique art form (Curti 511).

His statement showed Curti’s insightful perception in the interactive computer art. Creating interactivity among actors, audiences, and computer graphics was one of the main goals the production, Sleep Deprivation Chamber. How to assimilate this intellectual concept, art as an interactive process, to the production was one of my concerns during this research period.

The first live performance integrated with computer-generated imagery was presented in 1983. This performance was premiered in an opera house. Video-performance artist, Daryl Sapien designed sets for this production with an eighteen-minute animation which delivered the theme of coexistence between human and computers. Functioning as a “traditional scenic backdrop” (Goodman 182), the projected animation was orchestrated with choreography and the music. Many recent works showed the computer was used as “a live or real-time collaborator.” Computer technology allowed its spontaneous interaction with live performers and improvisation during the performance (Goodman 184-185).

3.2d AFRICAN-AMERICAN ART

While I was progressing with my design, I did not ignore the fact I was dealing with the story of an African American family. From my first readings, some curiosity and concerns were aroused about the color palette. What colors appeared in Suzanne’s dream and memory most often? Adrienne Kennedy’s story contained people and places which had special meanings and geographical information, played an important role in her books.
I reviewed several African American artists’ books. These books led me to the richness of African American cultures. Many works by a painter, Houston Conwill impressed me. Through his works I could observe the vivid colors, patterns, and textures reminiscent of ancient African traditions as well as contemporary Western traditions.

3.3 TECHNOLOGY ASSETS AND LIMITATIONS

In addition to my research as an art director, analyzing financial, physical, and technological resources was critical when the art direction was developed. Since there was a limited budget, checking technology assets of both ACCAD and the Department of Theatre was important to formulate design choices. Retrenchment was somewhat practical and expected during this period.

Regarding technology assets, the main concern was how many projectors and computers were possible to use during the actual performance schedule. The research was done by Professor Shanda and he confirmed that this production could actually have five projectors from ACCAD and the Department of Theatre. In addition, one projector would be purchased for this production. This information affected my art direction and set design ideas a great deal. The physical set was designed to locate projectors and projection surfaces which could contain images from five projectors. The actual spatial configuration was based on the location of projectors and the throw distance of each projector to get appropriate resolution of images.

3.4 SCRIPT INTERPRETATIONS AS VISUALS

Since considering the visual components as a whole was one of my main challenges, the physical set was designed to indicate each visual’s location in the Roy Bowen Theatre. Based on the Director’s vision and my research, I started to design the set for Sleep Deprivation Chamber. My main concern in the early design process
were about re-configuring the space of the Roy Bowen Theatre to create illusion of a road and locating audiences facing each other in the space. My early design idea (see Fig. 3.3) included a raised deck that represented the image of road, and two architectural structures at each side of the deck. By giving additional space under the deck for the lighting, I also envisioned lights rising from the floor level. For the Unseen Questioners, two moving stair units were designed, so actors could move these units around and change their positions in the theatre. The height when actors moved up to the stairs could also create the impression of authority by talking down to the audience members during the play.

Figure 3.3: The First Groundplan
Figure 3.4: Preliminary 3D Model of the First Groundplan
This model was used to show the idea of spatial configuration.

After the first production meeting on October 2, I presented a preliminary art direction and scenic design to the Director, the design team from the Department of Theatre, and the ACCAD’s CGI team on October 30, 2002. I presented my 1/4" scale cardboard model, the ground plan (the 2nd revision, see Fig. 3.2), and a visual chart (see Fig. 3.5 and 3.6) to show the transition and relation between the CGI visual components.

Figure 3.5: The Chart Created on the Wall of the Conference Room at ACCAD
This chart was divided into four horizontal sections that indicated the four elements of the play Suzanne's Dreaming, Suzanne's writing, Teddy's remembering, and the trial scene, and vertically, it was marked with the page numbers of the script. I started from the audience's entrance and from what would be the first impression they got from the environment surrounding them. I enumerated the visual elements including changes of scenery, animations, videos, and lights throughout the whole script. I continued this presentation using my cardboard model, the groundplan, sketches, preliminary images and research created by ACCAD's CGI team.

I showed the image of the road that emanated a strong line from the entrance of the theatre to the southeast of the theatre and explained how this linear road was metaphorically connected with entrapment, the main thread of this play. I described the road image representing loneliness, journey, history, family, movement, and escape. This road shared the same vanishing point with the projected image on the projection surface at the ramp area structure. This second revised model showed how I initially designed the south platform to bring the audience into the space.
Using the cardboard model, I indicated five different projection surfaces in the theatre; one at each end of the acting space, one behind both sides of the audience, and one center stage. From the beginning of the production meeting, there were various ideas about projection surfaces. To achieve a sense of entrapment, my initial interest was to have projection surface which surrounded the audience. Several tests with projectors in the Roy Bowen Theatre gave practical answers about the possible projection resolution after considering the throw distance. These projection surfaces were decided after meetings with the Director and the Technical Director. The design with two structures at each end of the acting space and drops behind audience seats already encircled the audience and actors.

Figure 3.7: The Second Groundplan
My presentation described the CGI visual components which would be projected in the theatre; “road”, “March”, “suffocation”, “moth”, “grave”, “moving clouds”, and “skull”. The color palette for the primary images was as follows. Warm magenta was used to show mobility, high energy, and intense movement. This color sometimes represented fire that was contrasted against water, loss, threat, revenge and (warm) blood. Cold violet blue was for lack of mobility, extreme sadness, sorrow, anxiety, frustration, and water or drowning that was against the fire as despair. Moss green was for quickly spreading poison, tree branch, warm smoke or suffocation against rapidly spreading blood. This color also showed scattering, disappearing, filling, and finally created the suffocation effect.

After my presentation, the director approved most of the art direction decisions I made. She had one suggestion about my set design idea about the ramp side scenery. The Director pointed out the geometric and futuristic shape of the ramp side scenery (see Fig. 3.7 and 3.8) in the second revision ground plan and recommended revising it for the next meeting. In this meeting, the Director of ACCAD, Professor Palazzi announced that the ACCAD’s CGI team would like to start production of visuals on November 1, 2002.
3.5 FINAL DESIGN IDEAS

Beginning from dramaturgical considerations about the playwrights and their work, the final design was created through a series of analysis, research, evaluation, and revision. The final setting as designed after the second revision, consisted of two audience's seating units, a road (the main performance space), two structures at each end of the road image, and five projection surfaces (see Fig. 3.11 and 3.12).

Figure 3.9: The Final Groundplan
Figure 3.10: Center Line Section

Figure 3.11: Scenery Units in the Performance Space
Figure 3.12: Five Projection Surfaces in the Performance Space

Figure 3.13: 3D Visualization of Five Projection Surfaces in the Performance Space
Figure 3.14 (left): 3D Visualization of the South Platform
Figure 3.15 (right): 3D Visualization of the Ramp Area Unit

Figure 3.16 (left): Road and Over-Head Projection
Figure 3.17 (right): Screens behind Audience Seats

"States of Mind"

As soon as the audience physically entered the space, they walked under the
south east platform to get to their seats and became a part of the journey in which the
main character, Suzanne's "states of mind" was explored (see Fig. 3.10). Her "states of
mind" were revealed as nightmarish images of her dream and her obsession of writing.
Suzanne's dream world was designed to show the conflicts and struggles within her
and parallel to her most recent experiences of encountering her son's false accusation
due to the color of his skin. In her journey, the dream and the real world, were woven
together and did not have a clear start and an end. Until this world was replaced by the
trial scene, the images in the performance space followed the logic of "states of mind"
which was disjointed, fragmented, horrifying, and ceaselessly yearning for the truth.

Figure 3.18: 3D Visualization of the Audience's Entrance

Non-linearity

In the setting, the idea of the journey and its non-linearity became important to
interpretational ends. With images projected onto five fragmented projection surfaces
(see Fig. 3.12), the idea of journey was visualized with the linear image of a road (see
Fig. 3.11), which was also paradoxically connected to the main thread.
of entrapment. All these elements allowed for the visual manifestation of how snippets of Suzanne's nightmarish dreams and memory floated within her mind.

Road

The physical space was designed to create the image of a "road". *Sleep Deprivation Chamber* was written in dream format, very imagistic and fragmented. Contrasting against this non-linear format, the physical set was designed to convey the linear image of the road. With the projected road image and Yorick's Grave animation represented in perspective which shares the same vanishing point with the physical road this physical space seems more linear and creates the impression of journey, loneliness, endlessness, escape, and movement. The notion of the road was connected to freedom in American culture and also paradoxically connected with the idea of entrapment. By taking advantage of the DCE (digital composing effects), CGI deliver this fragmented, dream-like quality to the linear road achieved within the physical space. The main goal of infusing CGI into the physical performing space was to visualize poetic, nightmarish, and dream-like images in the main character's unconscious dream world as well as to interpose the physical performing space to reinforce this disjointed and mosaic like plot.

The Style of Emotion

- Fear, Anxiety, Despair, Loneliness, and Loss.

The style of fantasy

- Dreams and hallucinations.

Dreams are further examples of the connection between fantasy and the real world. The characteristic of dreams is that they seem to lack logical organization.
after we wake, but while we sleep they look very real, sometimes frightfully real. Adrienne Kennedy employed images to connect with her unconscious processes in *Sleep Deprivation Chamber*. CGI, therefore, need to depict her fantasy with their dreamy and hallucinating quality.

**Environmental components**

- To create overall environment
- To correspond to the psychological range of the play
- "Road."
  - This projected road image represented in perspective creates the lonely, endless road which is connected to the linear road of the physical space.
- "Grave."
  - "Grave" represents multiple places.
- "Beating."
  - "Beating" is used to show views of Teddy, Policeman, and David Alexander. It is necessary to use clips of the live performance. Each different view is represented by different effects and looks

**Abstract components**

**Colors**

Kennedy found that Giotto’s colors, such as magenta, violet blue and moss green matched with her vision of the world. Giotto was one of the earliest artists to depict the illusions of real life in terms of emotion and space on a flat surface. Giotto is often regarded as the founder of modern painting, as he broke away from the static stereotyped conventions of Byzantine style, which was rigid, paratactic and excessively symmetrical in his day. To deliver Kennedy’s vision of the world, CGI would employ Giotto’s colors.
Warm Magenta: mobility, high energy, warm, intense moment of rage

- "Fire":
  Against the water
  As loss, threat, rage

- "Blood":
  As family, violence, life

Cold Violet Blue:

- Lack of mobility, extreme sadness, sorrow, anxiety, and frustration
- "Water"/ "Drowning":
  Against the fire
  As despair

Moss Green:

- (Cold) "Poison":
  Quickly spreading, against blood, tree branch
- (Warm) "Smoke/ Suffocation":
  Slowly scatters, disappears, fills and finally creates the suffocation

Warm Sepia color/ African American colors:

- Intensification of love and memory
- Suzanne's dream/writing/ images ("March"/ "cabin"/ "moths") based on her memory in the past

Yellow Crime Tape
Psychological color/texture range

- Colors and textures of images including "Suzanne's writing", "beating ", "moth", "fire", "blood", "smoke", "water", "grave", and "road" will be visualized to show ranges of images which are controlled or frenzy and blurred or clear to represent psychological aspects of the play.

Post-Production

- Images needed to be shadowy and poetic.
- Images were used to stimulate the audiences' senses and evoke an aesthetically meditative experience for the viewer.
- Design intention was to bring a more subconscious experience across the audiences rather than a literal message about specific subjects.
- Images should have an abstract quality.

Editing images

- **Color Low-definition/Desaturation**

  To portray the internal condition of an event means to penetrate our outer reality, to make viewers supply some of their own emotional energy to the communication process (Zettl, 1980)

  Images will be rendered in low-definition through desaturation of color or special posterization, mosaic, or soft-focus effects during the post-production process. These low-definition scenes make the event transparent and lead the audience to apply psychological closure, that is, to fill in the missing elements of the low-definition images. The audience can get more involved in the event.
**Projected Images:**

- To create spatial paradoxes, images will be used as an extension of the architectural space.

**Editing:**

Several editing effects will be used to intensify an event and reveal its complexity and inner layers. Complexity and layers in editing communicate the inner relationship of an event and stresses the event's principal moments. Complexity in editing tends to affect subjective, rather than objective, time.

- **Montage editing**
  
The montage editing style will be used to create a larger and more intense whole. Montage literally means to set together various story details. In the context of media aesthetics, montage is the juxtaposition of two or more separate images that, when shown together, combine into a larger and more intense whole. Montage editing usually consists of a brief series of quick cuts, showing segments of a single event or of different events.

- **Superimposition**
  
Superimposition works against a clear organization of the three-dimensional field into foreground, middle ground, and background. Its various planes intersect, expressing the complexity of the story as well as particularly deeper insight into the event's underlying complexity. A superimposition leads to an image in which the visual figure-ground relationship and the overlapping planes are largely dissolved into a complex array of intersecting images. By "superimposing" one image over the other, the objects seem to become transparent; they no longer overlap but rather intersect, eliminating the illusion of depth. We are no longer sure which image is in front of the other. By collapsing separate viewpoints or separate events into the same two-dimensional picture plane, we change the
viewer’s normal perceptual expectations to give not only more complex view of things but particularly deeper insight into the event’s underlying complexity. Because of this new structural bond, superimposition can suggest a strong relationship between seemingly unrelated events. Thus, superimposition works in this production to create a surrealistic or dreamlike feeling.

CCI including “moth”, “drowning”, “suffocation”, and “beating” was used to depict Suzanne’s nightmare and her memory. Supporting the nightmarish, powerful and unconscious story, this imagery appeared repetitively and simultaneously. Also, this imagery was used as a symbolic representation of her dream which was linked with her identity and “Africanness”. “African mask” and “March fabric” belonged to her background. Sampling Hamlet, imagery such as “skull” and “Yorick’s grave” were used to visualize main character’s desire and identity.

Props

Geographical, diversity delivered the iconic representation of “church”, “suburban house”; “cabin” and these were created as props in the production. Contexts including places, buildings, and people that were connected to where Suzanne Alexander came from, so this imagery delivered the sense of nostalgia and “African Americanness”.

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CHAPTER 4

PRODUCTION PROCESS

Figure 4.1: Production Timeline
By examining the practical development of each visual component, this chapter will chronicle the production process of The Ohio State University's Sleep Deprivation Chamber. This production process included the computer graphics as well as the physical set development process. The final visual components digitally created included six animations and eight video works, images orchestrated using Jitter MX, and video images captured in the real time during the production. The final scenic design included a south platform unit, a ramp; ramp area truss units, two overlapped sets scrim panels used as projection surfaces, and two painted bounce drops behind the scrim.

4.1 DESIGN ELEMENTS ON THE DIGITAL SIDE

4.1a ACCAD'S CGI MEETING

On July 18, 2002, several weeks after the preliminary meeting in the department of theatre, there was an initial ACCAD production meeting in the conference room at ACCAD. This was a meeting to share preliminary opinions after the first reading of the script. Maria Palazzi, Matt Lewis, Jenny Macy, Carrie Wilson, Matt Derksen and I attended the meeting. After a short explanation about a background on the play, I discussed concerns and issues we had about the script and possible technical problems with the projection, and possible scenes with which the real time interaction could provide. Reviewing questions and concerns among the ACCAD team members in the early process showed this team's farseeing and penetrating insight into the process of this production. Those questions were the following;

- How we will achieve transition from one CGI to another? Does it have to be continuous?
- Which technology will make interaction between the live actors and the images being projected possible?
- How will we interpret this script politically?
• Does each image represent reality vs. illusion?
• Is Uncle March a real character? Do we want any of characters to be CGI?

To approach a better solution, we opened ourselves to diversified experimental ideas, and practical information, and tried to saturate ourselves with this information as much as possible. From July to October 2002, the ACCAD’s CGI team spent a great amount of time brainstorming with the script and developing ideas of integrating technologies into the production. Top agents during these meetings were delivering the contents of what the Director considered the main elements in the script to the ACCAD’s CGI team and sharing brainstorming ideas for the application of technology. To support the brainstorming process of the production team, Graphics Research Specialist, Matt Lewis at ACCAD demonstrated possible technologies and resources to us. On August 1, 2002, he showed flocking behavior with moths and a real-time writing animation using a Wacom tablet. The following are the list of ideas developed during the meeting for use of technology.

• Using a student cast that is sometimes real and sometimes CGI.
• Using proper technology and triggering devices for interactivity vs. prerecorded imagery.
• Possible technologies which can show different images to different sides of the audience.
• Technologies which can control levels of abstraction in the dream sequences.

In October, the Director presented a list of Sleep Deprivation Chamber Media Groupings to the ACCAD CGI team while the CGI team and I identified and framed the problems and opportunities of the application of knowledge, skills, tools and technologies that meet the project requirements. This list of Sleep Deprivation Chamber Media Grouping⁴ was the Director’s general definition and an explanation.

⁴ See the page at 93.
of the project for the ACCAD’s CGI team. This list explained the Director’s most preliminary idea about visual components. After this meeting, the Director departed to England and could not attend meetings for a month, so the conversation between the Director and I was achieved via email. During this period, I was responsible for working as a mediator between the Director and ACCAD’s CGI team and for coordinating talents of ACCAD’s CGI teams.

Based on the list of *Sleep Deprivation Chamber* Media Groupings, ACCAD’s CGI team and I continued to develop our ideas for the visuals and prepared the coming meeting with the Director to show our direction when she returned to the states. Professor Paluzzi assigned each CGI member to bring research and preliminary images to the next meetings. She assigned animator Jeff Ostergard concrete images of “March” and symbolic reference of “suffocation”; Mike Altman, to concrete images of a grave and a skull and a symbolic reference of Poison; Carrie Wilson, to conceptualize images of Moths and the symbolic references of “restraint”, “drowning”, and Blood; Jenny Macy, to concrete images of “moth” and symbolic references of “fire”. This task for each CGI member was preliminary and changed while issues of feasibility and priority were identified.

ACCAD’s CGI team and I had another meeting at ACCAD to present research and reference images of assigned areas on October 9. The team moved to the Roy Bowen Theatre for a general tour of the facilities and the layout of the theatre. I explained briefly how the theatre space would be changed by my set design. To give a sense of how projection would affect color and resolution, Technical Director, Mark Standa set up projectors in different locations and projected images onto different surfaces. The tested surfaces included the floor, various screen materials such as fabrics and wooden panels, and the audience seating in the theatre.

Usually, the brainstorming step in the production process was the most creative, but somehow it became a frustrating time since we often needed to deal with the uncertainty of the project due to its understanding regarding the outcome of
decision or action. I think the period before my art direction and set design presentation at ACCAD on October 30, 2002, was a time for the production team and me to understand the problems and opportunities of the script, frame the true needs of the production, and identify reasonable solutions and alternatives. All of the ACCAD CGI team assisted in this brainstorming process.

After the presentation of my art direction and set design, ACCAD’s CGI team started to develop images that followed my original art direction presented on October 30, 2002.

4.1b GRAVE

The “grave” represented multiple spaces and connected to the emotion of loneliness and disappearance. It was also a place to think of Hamlet. Representing multiple spaces and connected to the overall metaphor, “grave” was intended to deliver the feel of isolation with its non-realistic and non-concrete look. This animation was also intended to come and go as the story evolved while fluxing with the play.

Figure 4.2: “Grave” Animation Rendered Image during the Development Process
Mike Altman, a graduate student from the Design Department at OSU, created the "grave" animation and the Yorick's "skull" animation. Altman and I spent some extra time outside of ACCAD meeting at the beginning of the production and discussed designs for trees and skulls. This animation was intended to create a parallel image of the "road". In Scene III, the "road" image projected to the ramp screen surface became the "grave" when Suzanne dreamt of Teddy standing in the Yorick's grave. Teddy was standing in front of the grave as if he was Hamlet confronting the true meaning of death. Dead trees had dry branches and decayed surfaces. Based on our discussion, Altman started to bring some sketches of various trees for the Yorick's grave animation. (see Fig. 4.2)

![Image from the Final Animation, "Grave"](image)

I wanted to have the clouds passing over these trees moving toward the audience to create more dynamic and threatening scenes and suggested changing color from blue to red to visualize the main character's emotional change. Altman animated each branch of these trees using dynamics in Maya 4.5 program, so the trees seemed to nod in the wind more naturally. After several tests, Altman and I decided to
change the colors of the light and animated lights to follow the same direction of the clouds' movement. This change of color and direction of light on the trees created a more believable image of this animation.

4.1c SKULL

I designed the “Skull” after a conversation with the Director, Lesley Ferris. Mike Altman modeled, textured and animated the scattering part of the animation since the Director suggested the skull have cracks and that they should be scattered in the air by a visa during the performance. In my conversation with Altman I emphasized the importance of having decay on the surface of the skull and provided reference images I researched, and the result was quite successful.

Figure 4.4. Reference image of “Skull”

These “grave” (see Fig. 4.3) and “skull” animations were finalized by the end of the fall quarter, 2002.
4.1d MOTR

Moths that existed in Suzanne's memory and dreams, and were a symbolic representation of the grotesqueness in her dream. The intention of my design was to create a suffocating and nightmarish look through both the shape and the number of moths as well as their flying pattern in the animation. During the early meeting, therefore, discussions were focused on how to create dramatic results using violent images, how to create interactivity between moths and actors and how to fill the performance space with the moths' disjointed motion and pattern. In order to get more dramatic effects and interactivity, the idea of having a temporary screen surface in the middle of the road (center performance area) and projecting images on movable screen including actual actors.

Jenay Macy from the Design Department created the 'moth' animation. Macy spent the early production period researching the Canadian Soldier Moth and later made a single moth model and swarming moths using Maya 4.5 program. The Canadian Soldier Moth had yellow and bluish black colors. With exaggerated legs of insects, these colors were used to create the feel of grotesqueness. Considering the production process, Macy created a single moth model with details for the close-up shot and the swarming moths we projected on an actor with less detail. After finished 3D models of high-resolution and low-resolution moths, she focused on the motion and flying patterns of moths. For the swarming moths, she used particle system in Maya to control their movement.
Figure 4.5 (left): Jenny Macy's Idea Sketch for "Moth"

Figure 4.6 (right): Jenny Macy Showing Her 3D "Moth" Model during the ACCAD’s CGI meeting

Figure 4.7: Final Image of the Lone Moth
4.1e AFRICAN MASK

March was Teddy’s uncle. He was a scholar of African culture and history at Stanford University who vanished one day. In the play, March only existed in the conversation between Teddy and Suzanne, and in their memory. After many debates about whether the March character would be an actual actor or an animated character, we decided to have a reference animation of March and an African mask. The mask was related to the “Africaness” March wanted to maintain and Suzanne’s identity issue as an African-American. My design intention was to show March’s loss of identity and recognition through the mask’s morphing, scattering, and disappearing.
Jeff Ostergaard, a graduate student from the Design Department mainly worked on the animation visualizing three dimensional metamorphosis of an African mask to a human skull and mask’s cracking and scattering animation. I presented the possible color palettes for the March character and mask. Ostergaard started by researching African masks. Later, the Director offered the reference of an African mask to Jeff and he reconstructed it in the 3D space. The specific images the Director wanted through this mask animation was its cracking, scattering and morphing into skull. He experimented with several different ways of morphing from the mask to the skull, and demonstrated them during the production meeting for the Director. After the morphing animation, Ostergaard worked on the cracking and bleeding for the mask scene.

![Figure 4.9: Mask Morphing Idea Test](image1)

![Figure 4.10 (left): Capturing the Hand Scene of “African Mask”](image2)

![Figure 4.11 (right): Composing the 3D Mask with the Live Footage](image3)
Later, these animations created in 3D were composed with the live videos. The dramaturge, Professor Anthony Hill, posed in front of the green screen and Ostergaard and the videographers from the Department of Theatre recorded the footage. I attended the shoots and supervised the overall camera set up and lighting of this video. For keying out the background green color, setting lighting was the most critical during this process. After the Director approved the footage, Ostergaard color keyed the footage and composed with the animation he created.

4.1f CALIFORNIA ROAD

The "California road" was designed to evoke the sense of journey and dangers Hyun Jung Chae was assigned to work on video graphics and video processing. The "California road" video was added during the later production process. Chae had knowledge of video editing and showed a strong talent creating abstract images. She shot video footage of the night road during the rainy day and manipulated the images to create the mood of nightmare. Filtered and layered images added the abstract quality to original footages.
4.1g MARCH FABRIC

The “March fabric” was created to represent the African-American heritage of main characters. It was designed to create the iconic representation of “Africanness”. The editing style of this footage was intended to layer and blur the original footages to create a dreamy quality and the sense of loss.

Hyun Jung Chae processed and created the “March fabric” video. The Director provided an original African costume, and Chae shot the original footage of this fabric and edited this footage. For the better communication with the Director, she created three different fabric movies and got approved by the Director. The original footage was made by Chae’s creative approach to the given object. Following the intention of art direction, she changed camera angle or contrast and intensity of the footage to create the sense of loss through the video process.
4.1b SUFFOCATION

There were several abstract visuals which were related to the main emotion of this play such as suffocation, entrapment, loss, and drowning. In an early production meeting, I discussed the possible images which can represent these kinds of...
psychological aspects of the characters. From the early production period, I encouraged ACCAD’s CGI teams to start their own research of these main emotions of this play. There were a number of presentations in which team members showed various color changes and motion to demonstrate the emotion of suffocation and drowning. At the beginning, Ostergaard created several images using smoke with red and green colors and Wilson’s “suffocation” used moths. After this brainstorming step, CGI tasks were assigned and Wilson mainly worked on the most abstract visuals of the production including “suffocation” and “drowning”.

The “suffocation” was connected to the pain of main characters, Suzanne and Teddy. In the early meeting, various ways creating suffocating images were discussed including using moths or beating scenes. After several experiments with different elements, Wilson created sequences of images using smoke and dirt in conjunction with hand motion (see Fig. 4.18).

Figure 4.16: Ostergaard’s Research for “Suffocation”
Figure 4.17: Wilson’s Early Ideas for “Suffocation”

Figure 4.19: Final Image Sequences from “Suffocation”
4.11 DROWNING

In addition to "suffocation", "drowning" was created to deliver another strong emotion of main characters, despair. Wilson started to create the storyboard of "drowning" (see Fig. 4.19). Symbolic images of finger print and water swirling were used to represent Suzanne and Teddy’s despair and anxiety. Moss green color was used in contrast to the color of “fire” and “suffocation”. After several experiments, Wilson created “drowning” sequences which began with the Suzanne’s letter which represented her hope and continued with its distorting and drowning into water (see Fig. 4.20).

Figure 4.19: Idea Test for “Drowning”
4.1j OSU SLIDE SHOW

With the support of dramaturg, Doctor Anthony D. Hill, I could easily create the "OSU slide show" movie. Doctor Hill collected the 1949 OSU campus photos and I created the slide effect using the Adobe After Effects 5.0, the editing software.

4.1k BEATING

Among my tasks for the video progressing, "beating" movie was the most complicated one. This video shooting involved Kendrick Hardy's audition date. The
Director wanted to reveal the main character, Teddy acted by Kenderick Hardy, a graduate acting student in the Department of Theatre. The Costume Designer, Adam M. West, a graduate student in the Department of Theatre, created the storyboard of “beating” based on the Director’s direction (see Fig. 4.21). The videographer, Rob Schubach and the Director shot the video twice to get the right footage for the “beating”. Meanwhile, I was video taping police cars at night using my personal camcorder. Since the “beating” movie needed to have documentary look, footage with a little jagged motion looked effective for the production. The montage editing was used to represent the layered and complex emotion involved to “beating” and figure 4.22 is the final image sequence.

Figure 4.21: Storyboard for “Beating”
4.11 ROAD

The "road" image became very important as a main image linked to the main concept of the art direction and set design, and a parallel image of the "grave" animation. Based on the art direction, I wanted to have a linear road image which had a specific vanishing point. Particularly, the Director wanted to have a suburban road which had suburban houses alongside the road. This idea was delivered to the videographers from the Department of Theatre supervised by Rob Schupbach. After
sharing the footage with the Director, I started to edit one footage which both the Director and I agreed on. To me, emphasizing the concept of journey, loss, movement, and family through this road image was important, so I changed the contrast, the color, and the opacity of this image to achieve the main concept. I prepared one “road” movie and one “road” still image. Later, the Director and I decided just to use the “road” still image since the moving “road” movie could give motion sickness to the audience. Colors and intensity of the image was manipulated to create dreamy and nightmarish look. To create more depth and layers, I superimposed images of different opacities (see Fig. 4.23).

![Figure 4.23: Final Image of "road"](image)

4.1m EMMETT TILL

I created the “Emmett Till”, “road”, “beating”, and “OSU Slide Show” videos. Using simple fade-in and fade-out technique in editing program, I created “Emmett Till” movie (see Fig. 4.24).
4.2 JITTER TEAM

While ACCAD’s CGI team was developing the visuals for the production, the other side of ACCAD team was preparing technologies which could make all the magic we were trying to create possible. Director of Technology and a Graphics Research Specialist, Matt Lewis and his group of computer programmers, including Lon Woodrow, Van Kalal, and David Tinapple, were creating patchcards with the program, Jitter. Jitter was integrated with Cycling ’74’s MAX/MSP graphical programming environment which let users visually connect data processing objects together with patchcards to create custom applications in a similar manner to analog modular synthesizers (Cycling ’74). The Jitter team devoted their time to creating patchcards, visual frameworks, and providing video effects, realtime video mixing and algorithmic image generation. To optimize the use of this program for the production, ACCAD’s CGI team and the Jitter team made decisions on how and where to use this program for the production. Jitter was known as a program which was so flexible and had unlimited possibilities in terms of transcoding of information and the manipulation of data, so using it wisely was the key for the production.
The video editing of the "Writing", the Director approved "Blood" and "Beating" on March 10. The final 320 pixels by 240 pixel renderings of the each visual component were completed by March 17 and the final 640 pixels by 480 pixels renderings were by March 21, 2003.

4.3 DESIGN ELEMENTS ON THE PHYSICAL SIDE

4.3a LIGHTING TEST

![Image of Lighting Test]

Figure 4.25: Lighting Test

On February 28, Resident Lighting Designer, Professor Mary Tarantino, Professor Shanda, and I did a lighting test in the lighting lab at the Department of Theatre. Before this test, Professor Shanda and I selected cotton scrim from the RoseBrandy catalog. I chose two different colors of the cotton scrim, which were a white and ivory. To select the right color for the projection and the light, Professor Shanda and I decided to order five feet by five foot square samples of each color.
also painted a sample drop that worked as the bounce drop behind the screen. At the testing date, we hung sample scrims and hung a paint sample behind it in the lighting lab. Professor Tarantino created lighting effects and Matt Lewis projected prepared animation and visuals to these layered fabrics. Professor Tarantino changed the intensity and color of light to change color and mood of the drop. Our ultimate goal of this test was to make the writing textures on the bounce drop appear and disappear by changing the level of drop's lighting. Fortunately, the effects we were planning worked, so we could see emerging writing textures on the bounce drop when Professor Tarantino put light on it.

4.3b SOUTH PLATFORM

The south platform unit was created with 1"x 1" tube steel and plywood. After several meetings to decide the height of the platform, the final decision was made to have it 7' - 4" high. This height was the optimum decision considering the entrance of the audience underneath as well as the acting space on the platform, the projection screen, and the moving lights installed on top of the unit.
Figure 4.26: Elevation of the South Platform

Figure 4.27: Top View of the South Platform
In addition to the technological assets, analyzing the stock material was another critical process considering the budget of the production. Prior to the design of the south platform unit and the ramp area unit, stock trusses were examined by the Technical Director based on my set design direction. Considering the work crews who could weld and build the units and the actual material the production afforded, the decision for the design of the south platform and the ramp unit was made. Truss units were important for their functions of holding lighting fixtures including the moving lights as well as the screen materials. 1” by 1” tube steel was used. The easy to manipulate the shape by welding, its comparably light weight, and the cost were considered when I decided the material.

Figure 4.28: Ramp Area Unit
4.3 ROAD

Continuing the CGI of "grave" and "road", the metaphorical image of a road was created in the performance space. This linear road image was started from the entrance, continued to the ramp, and extended through imageries projected on the projection surface of the ramp truss unit. The actual painting of the road was done by me and the Professor Gray's scenic painting students. I provided the paint elevation (see Fig. 4.29) and showed the paint sample (see Fig. 4.30) I'd created to show the paint techniques. After scumbling three base colors, splashes of dark blue and dark brown was added on the surface. Later, the colors were evened with light and dark gray spray.

![Image](image_url)

Figure 4.29: Paint Elevation of Road
4.3c LIGHT-BOUNCING DROPS

While the ACCAD CGI team and I were finalizing our assignments, I started to paint light-bouncing drops used behind each side of the audience seating. The Technical Director, Shanda suggested that we might save money by using the full-stage muslin drops from the scenery of The Ohio State University's previous production, Oxygen. Fortunately, the Scenic Designer of Oxygen, Brad Steinmetz, used two full-stage drops wider than 47 feet, therefore we could get enough fabric to make the bounce drops. Betsy Curtler, the Assistant Scenic Designer and graduate student in the Department of Theatre, assisted me in hanging the drops on the vertical paint frame and in painting these drops. These drops needed opacity and a scumble painting technique. Betsy Curtler and I started with drops we got from the green Oxygen drop. To eliminate the green color, I applied a fairly broad two-color scumble of warm and cool gray colors. The next step was applying another scumble with a watered down dark greenish-gray color. To apply the writing textures, Betsy Curtler
and I made a chalk line every four inches from the top of the drop and took texts from the script and applied lines randomly on the surface. We wrote these texts with the dark blue color first and shadowed under them with grayish color. The final step was spraying a light blue wash slightly over the drop. This allowed us to even out the base color and add more layers to the drop. This whole process took approximately a week. Betsy Curtier and I applied same steps to other drops from the blue oxygen drop. After finishing the last two drops, Betsy and I laid them on the floor of the Thurber Theatre and compared the final looks of them. Unfortunately, they had a slightly different color tone on them since the green drop and the blue drop had same treatments but different colors on them. The green drop had more opacity to it and the blue drop was starched to be translucent. Betsy and I tried to match these drops. We added more color and sprays. The final look of them was better than before, but they had somewhat serious overall noise. The only solution was hanging them past the grid of the Roy Bowen Theatre.

4.3 SCRM PANELS

After the lighting test, I found that there was no need to apply any painting treatment on the scrim panels to keep the fluidity of the scrim material. Under Professor Shanda’s supervising, undergraduate students sized the scrim and attached transparent, flexible lexan bars with double sided tape. I asked them trim the edge of scrim and pull several threads out to eliminate the rigid rectangular look of the scrim panel. The decision on the treatment of the scrims was made as one of attempt avoiding frame-shaped screen. Using fan to increase the fluidity was discussed during the production meetings.
There were few props for this production. The main props were Suzanne’s desk, chair and five miniatures. Since Suzanne moved to three different locales in the play, the Director and I decided to attach casters to the table. In addition to the casters, the Director decided to install the Wacom tablet which Matt Lewis demonstrated in the table. Lewis and I spent some time to decide the proper size of the tablet for the design of the desk. There was an issue where this desk moved during the production considering the length of the cable and the blocking issues. I designed the desk and chair, and five miniatures, and the Props Mistresses, Melissa Bialko and Betsy Cutler, both graduate students of the Department of Theatre, built props under my supervision. I wanted to have a very simple and minimalistic design for the desk and chair, with strength to hold computer equipment inside of the desk, so I decided to use a welded metal frame for the desk and chair. During the process, Lewis and I
discussed whether putting the computer inside of the desk or not since we were considering a wireless transmitter between PC and the tablet. Matt decided not to put the PC in the desk. Melissa and Betsy welded the frame of the desk and chair. To install the tablet, I made a groove deep enough to put the tablet and cover the table and table with thin veneer. Matt and I tested the proper material to cover the table, so table can read the writing with the thickness of the covered material. The veneer worked perfect with the tablet pen and the tablet, and matched the color of veneer and other parts of the table hide the tablet seamlessly.

There were five miniatures in this production: a hand, a suburban house, a cabin, a policeman car, and a church. Based on the conversation with the Director, I designed these miniatures and visualized them with 3D models with the program Maya (see Fig. 4.32). The Lighting Designer, Mary Tarantino and I tested the lighting fixture to find the right intensity and color of them. This lighting test was done with testing materials of the miniatures which enhanced the lighting effects. My design intention was to create minimalistic miniatures which contained inset lighting fixtures, so whenever they were carried, they can partially illuminate the space. Melissa mainly built these miniatures with the assistant set designer, Betsy’s assistance, and Drew Ward, a graduate student of the Department of Theatre, installed lighting fixtures inside of the miniature under the supervision of Professor Tarantino.

Figure 4.32: 3D Models created to visualize the idea for props
Figure 4.33: Technical Drawing of the Prop, “Suburban House”
CHAPTER 5

EVALUATION

I watched *Sleep Deprivation Chamber* five times. As a member of the audience, my mission was to participate in the journey of main characters of this play. Each night, the composition and the dynamics of the motion varied and were influenced by where I was seated. The visual elements were nicely orchestrated with actors, lights, sounds, and scenery. With new technologies, this production offered opportunities for creative and interactive experiences to participate in a new form of drama. In this chapter, my main concern was evaluating the art direction of *Sleep Deprivation Chamber* from how it was conceptualized, developed, processed and presented with other constellations and configurations of design and directorial choices in this production.

5.1 SLEEP DEPRIVATION CHAMBER AND NEW MEDIA

To evaluate the production of *Sleep Deprivation Chamber*, it is useful to recall some notions that I was concerned with while I was creating the vision for the production. The first personal notion was how to link theatre and technology. The second was how to define an adequate style of the production while dealing with new media and technologies. These approaches abide by the rapid development of technologies and its search for adequate theatrical and narrative styles that fit more to this new medium.
My thinking on integrating performing arts and technologies originated in my personal research of new narrative styles with new medium. This personal research basically started with my study of 3D animation, virtual reality, interactive media, motion capture, and new media installation as well as new art forms in different disciplines such as dance, performance art, and video art. Through this research, different liaisons of performing arts and technologies were examined and practiced, and some of possibilities were discussed in my paper titled “Computer Graphics and Theatre” presented at SIGGRAPH 2003. In this paper, Sleep Deprivation Chamber was used as an example of integrating computer graphics and theatre.

Sleep Deprivation Chamber became a great example of creating new narrative style by linking media and theatre, but this production raised many questions about this liaison of media and theatre. How necessary the use of media for this production? How did media function? How were media and theatre combined? How artistically was media used and enhanced the storytelling? How much interactive media achieved among actors and spectators? Answering these questions was important since injecting media into a live performance could be unnecessary unless they were adapted to various rhythmic and dynamic actions of live actors in the live performance to enhance the storytelling. In the enhanced level, the use of interactivity in the relationship between media and performance needed to be discussed. There are many possible answers to these questions considering the variety of roles media can play within a performance event.

For Sleep Deprivation Chamber, the use of digital media was an appropriate choice since its subject matter was related to the main character’s unconscious world; the main character, Suzanne’s dreams and memories. Suzanne’s dreams and memories injected the storyline and created non-linear story format. To visualize simultaneity of her multilayered inner world and deliver the playwright’s visionary writing, new digital media and interactive technologies were necessary.

1You can see the paper at http://www.acad.ohio-state.edu/~vshoji/igraphics.pdf.
In *Sleep Deprivation Chamber*, the media could play various roles; it functioned as virtual scenery by depicting the environment with “grave”, “road”, and “California road”. It worked to show character’s dreams and memories with “suffocation”, “drowning” and “moth”; served as commentary by delivering video clips and still photographs depicting the brutality of the incidents of Rodney King and Emmett Till on the screen. Sometimes it illustrated the performer’s words. All media in the performance served their functions well in the performance. Besides all these successful implementations, if there was more I expected in the early production process, it was experimenting with this media to create dramatic interactivity with live performers. Interactivity between performers and the media was tested and successfully delivered with Wilson’s “drowning” animation that used a laser sensory system and the Jitter program. Image sequences were triggered by Suzanne’s touch to the projected image on the performance floor, but this scene could not create the true interactivity among imagery and the performer. It was more about the actress triggering image sequences by her motion.

There are more issues I would like to add in this evaluation chapter. They will be discussed in the next sub-chapter.

5.2 THE ART DIRECTION AND DESIGN CHOICES

For the rest of this chapter, I will discuss more specifically the art direction and the design choices I made during the production; which worked well and what did not, and lessons which I learn during the process.

When it comes to the visual components digitally created, there were also a lot of successful moments I could notice during the performance. Atmospherically, Altman’s “grave” created very surrealistic look and Chae’s “March fabric” and “California road” added dream-like and somewhat nightmarish mood to the production. The most abstract and beautiful scene was Wilson’s “drowning” movie
projected onto the theatre floor during the transition between the scene II and scene III. It worked beautifully with one of technology team's successful triggering devices. The ripple was triggered by the laser sensor after sensing the touch of the actor and it was continuously spread over to the rest of the screens. Another successful over-head projection was achieved by the "moth" animation created by Masy. Showing another way to integrate the live performance and CGI, the moths covered Teddy as he laid down creating one of the more impressive spectacles during the production.

One additional aspect of this production which was often unnoticed was the involvement of technologies in this production. All the smooth and successful transitions from one component to another were possible by the elaborate work of the Jitter team.

Regarding the physical environment of this production, the strongest part of the set design of this production was in its spatial configuration. Changing the space in the Roy Bowen Theatre and making the audiences face each other was one of the most effective design choices we made. Lesley Ferris had this idea at the beginning of our early meetings and I tried to bring her very early ideas to my set design process. I thought her choices were quite inspirational and interesting. I think overall that choice worked well with the actual play, especially for the scene III, the trial scene. By placing audiences in the opposite sides of the theatre, they could experience the whole play as part of the "mise-en-scène" (holistic overview) of the production as well as become observers of the accidents happening in the play. In addition to the functional effectiveness of this choice, the exaggerated linearity and perspectives of the final image of the road added emotional impact to this whole production successfully. I think I took the best use of the space in the Roy Bowen Theatre.

In terms of scenery, the south platform unit served well as a main projection surface, an entrance, and a strong scenic element. Slightly contrasted with the curvilinear unit at the ramp area, visually and functionally the south platform unit worked well with its predominant angular and linear shape while creating the
impression of threat and authority. This space was well used for the scene III, the trial
scene by Lesley Ferris. By locating the judge at the upper part of the platform, this set
showed physically the hierarchical structure between actors and even the audience.
The height of the platform was 7'4" to allow the audience's access below. This
created a sight line problem and unavoidably bothered the view of the audiences who
were right in front of this set, but the height was the optimum solution regarding the
theatre space, the budget, and the functions of the platform. In spite of this inevitable
aspect of the south platform, it served well to create various spaces for the actors.
Mary Tarantino helped a lot to fragment this set unit different ways. By taking
advantage of the horizontally divided structure, Professor Tarantino allowed the upper
part of the platform to be a space for the lawyer and judge as well as solely for the
movies projected on the screen surface. She also effectively used the under part of the
platform well by installing light fixtures right beneath the platform to created a
separated space for the ensemble.

In terms of material choices, I think the scrim material I used as main
projection surface at the behind the audience seats, was nicely incorporated with the
back bounce material and Mary Tarantino's lighting. This scrim fabric in front of the
muslin fabric created a layered effect which was suited to the multi-layered,
nightmarish, and dream-like play. With nicely incorporated lighting by Professor
Tarantino, images projected on this scrim and bounce corps, could have less rigid
frames and merged nicely to the physical projection surface.

Also, revealing the operators, as part of the set was a nice choice. It broke the
simple boundary between who was supposed to watch and who was supposed to be
watched. Exposing all the equipment including computers, operating equipment, and
moving lights added more to look at for the audience.

There were few pieces of furniture in this production. Cutting down the use
of furniture was another smart choice of Lesley Ferris. Except for Suzanne's desk and
chair, there were just four stools used to support the action. The simplified use of
furniture enhanced more creative application of the given circumstances. One of these
unique application was the use of the detachable and mobile stair unit. This rolling stair unit once was used to present a police car. By placing actors in the audience seats, the production team could solve the problems due to limited exit and entrance space as well as actors’ constant presence for the multiple roles.

Overall, the Art direction and the scenery for Sleep Deprivation Chamber were extremely successful. The art direction and the design succeeded in creating a world orchestrated by so many different components as a whole. The world was so fragmented, nightmarish, frightening, and violent out filtered through mental meditation.

Besides all these successes of the production, there were some flaws in the art direction and scenic design. The greatest flaw in the overall art direction was in its lack of moderation in terms of imposing visuals into the production. The overall visual components gave the impression of redundancy. Especially, for the scene III, images were recycled throughout the whole scene, so audiences saw what they already got through the whole play. Another example was the beating scene. The live beating scene might lose its power since it was over repeated through pre-recorded video clips as well as captured video images in the real time. This flaw might be due to the art direction which could not sufficiently consider all elements of the production including lighting, sound, scenery, and acting.

Some flaws of the art direction were originated from the inadequate production timeline. At the beginning of ACCAD’s CGI meetings, the process of researching, brainstorming, and conceptualizing for CGI was opened to animators. It was due to the intention of Professor Palazzi giving animators chances to participate the process of the production from its brainstorming step. Unfortunately, during the first month, ACCAD’s CGI meetings did not progress well. Even though ACCAD’s CGI team had the list of the Director’s Media Gropings, they could not fully meet the animators’ needs. The Director was even absent during meetings for a month during the storyboard developing period; so many questions from animators which were linked to the directorial aspects of the production could not be answered during this
period. Those questions were quite specific about how the Director would block acting; where CGI would be projected in the performance space; and what would be the right duration for each animation. My preliminary art direction was presented on October 30th, 2002 a month after the Director’s Media Groupings was presented. Based on this presentation, the CGI tasks were assigned to animators and the CGI team started the production from November 1st. I concluded that the timeline of *Sleep Deprivation Chamber* was not adequate supporting the needs of the CGI animation production. To meet these animation’s production needs, the storyboard was required to contain the full information including the location in the physical space, the duration of an animation, and more specified blocking ideas with actors to create the interactivity between the imagery and performers. Considering animation production’s needs of detailed information, one month of preparation time for the storyboard and conceptualization was not quite enough to solve all the conceptual, practical, and artistic needs of the animation production.

Finally, I found that performer’s longer exposure to media during the rehearsing time was necessary to achieve the ultimate purpose of integrating media with the live performance, the true interactivity between performers and the media. Unfortunately for the production of *Sleep Deprivation Chamber*, the performers’ rehearsal time with the media was not enough for them to experiment with a true level of interactivity. Even though the production had a longer period of technical rehearsal time, it was still not enough for performers to incorporate with all the elements together in the physical space. Performers had somewhat insufficient rehearsing time with media, so they could not fully interact with the narrative and poetic elements in projected imagery. I strongly agree with what Saltz called “the paradox of the interactors” which means “the more rigorously the performer has rehearsed with the technology, the more clearly the audience will recognize the ability of the environment to respond dynamically and spontaneously to the performer’s action”

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1 I redesigned the timeline for the future multimedia production. See the Timeline Suggestion on the page 87.

2 Consider the chapter 2, the Production Situation.
(Saltz 117-118). Regrettably, overall projected imagery could not extend its role as somewhat pretty scenery drop.

5.3 PRODUCTION PHOTOS

Figures from 5.1 to 5.12 are production photos. I chose photos which showed various scenery changes, CGI components in the physical space, different projection ideas, and actor’s performance incorporated with various visual elements well.

Figure 5.1: Production Photo #1
Figure 5.2: Production Photo #2

Figure 5.3: Production Photo #3
Figure 5.6: Production Photo #6

Figure 5.7: Production Photo #7
Figure 5.8: Production Photo #8

Figure 5.9: Production Photo #9
Figure 5.10: Production Photo #10

Figure 5.11: Production Photo #11
Figure 5.13: Timeline Suggestion
APPENDIX A

THE DIRECTOR'S CONCEPT
Production Concept Draft on Adrienne Kennedy and *Sleep Deprivation Chamber*

**DIRECTOR'S CONCEPT STATEMENT**

"My plays are a state of mind." Adrienne Kennedy

*Sleep Deprivation Chamber* is a dream-like meditation on truth and justice in contemporary America. The play is filled with a sense of tension and apprehension which comes primarily from Suzanne Alexander. The concern she feels for the well being of her son is made manifest through her disjointed dreams and her obsession with writing: both the writing of letters and the writing of a *memoir*, and ultimately the literal writing of the piny we are reading/ seeing. Kennedy/ Alexander exposes writings' dilemma: is it efficacious? Does it produce change? Can it effect the course of events? Suzanne Alexander cannot stop writing: She writes too many letters, she writes plays, memoirs...and this time at least it has an affect. Her ability to articulate the world around her through her poetry and playwriting; her talent for expressing feelings and telling stories, the very thing that has made her what she is—writing—has an impact on protecting and saving her son. In some elemental way her writing both defeats and fails her. Her writing does, however, record a sense of loss.

In contrast to the mother who uses her pen, Teddy, her son remembers and he acts. He acts and/ or directs a student production of *Hamlet* at Antioch College. Student actors rehearse and discuss what many consider to be the greatest revenge tragedy of all time. In *Hamlet* the father's ghost appears to alert his son to his murder. The murder of the father enrages Hamlet; it is a grave injustice, an indication that something is 'rotten in the state'.
In the disjointed logic of dreams, Teddy, the son, is a parallel to Hamlet, the son, who wants to right a massive injustice. In Teddy’s case, however, he is both the center of the injustice (Hamlet’s murdered father) and bearer of truth, like Hamlet. Hamlet/ Teddy carries a terrible knowledge, a secret, that almost unhinges him. For Hamlet it is the knowledge that his father has been murdered and that his mother is married to the murderer. For Teddy it is the knowledge that he was stopped by the police once before, a terrifying point of time which he never told his parents; in this abrupt, unsettling instance Teddy is face to face with racist injustice; something which both his mother and himself thought, as educated, middle class Americans, they were immune.

As audience/ reader of Sleep Deprivation Chamber we witness the aftermath of this trauma which leads to a fragmented, sleep deprived state for the two central characters of the play: Suzanne and Teddy.

As the ghost of Hamlet’s father haunts both Hamlet and the eponymous hero, so too that ghost—seeking revenge?—haunts Kennedy/ Alexander’s sleep-deprived, nightmarish world. A sense of ghostliness, of haunting, of shadows is ever present.

Issues of staging the play:

1) The image of the road: a journey, a pathway, going from one place to another, travel, right of way, intersection, junction, artery, interchange. Involves movement, motion, activity, speed, velocity, restless, mobility.

2) Audience facing each other (reminiscent of the effect of Maya Lin’s radical sculpture for the Vietnam Veterans: shiny black marble in which viewers see their own faces overlaid the engraved names of the dead)

3) Variety of projection areas: floor, above audience heads, on the surface of actors. Teddy covered in Canadian moths at the end.
4) Linda Kintz discussing Kennedy's plays: "Their mesmerizing complexity, horror, and grotesque beauty works like Möbius strips that keep turning inside out to show what goes on in the ambiguous, troubled process called acculturation." (The Subject's Tragedy, University of Michigan Press, 1992)

5) Suzanne and her writing table: multiple tables? Emanating light? Movement?

6) A wall of light rising from the floor... on one side of the light actors appear as ghosts; they step through it to become real, whole, in the present tense.

7) Can the audiences' entrance into the space elicit images and sounds? A harbinger of things to come?

8) Is this a dream? Yes and no... Franz Fanon's work has been compared to Kennedy in the following way: Fanon "draws on a painful re-membering, a pulling together of a dismembered art to make sense of the trauma of the present." (Kinz, 144) So for Fanon and Kennedy the only way to approach a retelling of the racialized past is through a carnivalesque heterogeneity: we are unhinged in time and space; hierarchies are collapsed; mixture of categories; inversion of ranks; repetition.

9) Qualities: Mosaic, interruption, disjointed, segmented, crack, gap, punctuate, hiatus, gap, circulate

The play's structure:

Broken down into three scenes, each containing four elements (with one exception) as follows: Note: Despite the play's non-linear structure, it does move forward... time is like that! No escaping it! Suzanne writing and Teddy remembering are synchronous in Scene I and Scene II. The focus of Scene III is the trial; Suzanne's presence diminishes. It is as if Suzanne yields her pen to the language of so-called justice; the court and its own peculiar logic takes over—but even here in the courtroom the sense of heroism is disrupted and punctured by Dreams and a staging of the police beating.
Scene I: Antioch College/ Backstage
   a. Hamlet Rehearsal  b. Suzanne Writing at Table  c. Dream Scene  d. Teddy Remembers

Scene II: Cleveland/ Greenroom for *The Ohio State Murders*
   a. The Ohio State Murders Rehearsal  b. Suzanne Writing at Table  c. Dream Scenes
   d. Teddy Remembers [e. Pre-Trial Deposition by David Alexander]

Scene III: Hotel in Washington
   a. Courtroom/ Trial  b. Suzanne Writing at Table  c. Dream Scenes
   d. Teddy Remembers (including the California incident)

**Dream Scene Sequences**

I.
   a. Teddy’s Body/ in frames
   b. Crime Scene/ March and Suzanne/ fallen furniture and kicked in the stomach
   c. March disappearing

II.
   a. Teddy/ Edelstein/ Moths
   b. Intercepted letter
   c. Suzanne on knees
   d. Suzanne praying

III.
   a. Yorick’s grave
   b. Teddy in Yorick’s grave
   c. Teddy in Yorick’s grave/ Moths
   d. Moths
Sources to consider:

"People Who Led My Plays: an experimental memoir that visually and textually offers a quick glimpse into her personal life...."

"Letter to My Students on My Sixty-first Birthday by Suzanne Alexander"

The only thing holding me together was Teddy’s performance in Hamlet. And my mother singing spirituals every morning as she dressed to the shopping center.....
APPENDIX B

SLEEP DEPRIVATION CHAMBER MEDIA GROUPINGS
Sleep Deprivation Chamber Media Groupings

Listed in order of priority within each grouping – the groupings themselves are (at this point) equally important – will be better able to determine priorities once we know potential difficulties and timeline.

Video Tape
- Beating - Multiple perspectives if possible
- Roney King Tape
- Who will we need to shoot the beating?
- How stylized will read in production?

Writing:
- Writing itself?
- Dissolve into other animations
- Reveal other images
- Overlap images
- Drive motifs?

What are the possibilities for transformation?
How soon do we need to limit the number of choices?

Live camera:
- Preshow – Process feed (potential use later)
- Black & White Exchanges - sense of witness
- Against the video tape image
- Possible use in trial settee/ Unseen Questioner
- Need to know how much can be processed?
- Can we get two that can be operated by actors rather than limited to fixed positions?

96
Shadow Teddy:
- Mirror shadow of Teddy can be used multiple ways
- Primary focus is for the Unseen Questioner flashbacks
- Complexity
- With projection surfaces is this viable?
- Easy to test?

Concise Images:
March
- Physically human reference?
- Animal mask reference?
- Will need to speak two lines – Possible to animate or connect
- Symbolically?
- Walking figure that mutates?

Moths
- Can these grow in number?
- Can we make them appear to cover the performers?
- Can we make them appear reactive to the moment?

Yellow Crime Scene Tape
- Wrap around audience?
- Will return multiple times?
- Can the tape be a space for Suzanne’s writing?

Skull – Yorick
- Can we create the illusion of digital skull in physical hand?
- Potential multiples of projection with this image

Grave
- Potentially more of the environment than the grave itself
- Sky and dead vees to surround the grave
- Sense of whole in space?

**Baby Shoes**
- Least sure if this would be usable as image

**Symbolic References:**
**Fire**
- Need multiple of this – lot of references to fire
- Can fire turn into blood and vice versa?

**Blood**
- Connection to fire
- Can we make things bleed as a transition potential?

**Suffocation**
- How to achieve this sense in the space?

**Restraint**
- Connects to unseen Questioner moments
- Will use the sense of this multiple times if readable to audience

**Downing**
- Water references are potential against the fire
- Transition?

**Potion**
- References throughout – will connect to the Hamlet dumb show
  Red berries/ sleeping
APPENDIX C

CGI COMPONENTS BREAK DOWN
ILLUSTRATION 1: Blood
<table>
<thead>
<tr>
<th>Page</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>27</td>
<td>David: I saw this... Blood(blood of the pouch's mask) Finger print into blood Smear blood</td>
</tr>
<tr>
<td>28</td>
<td>Lawyer: Have you ever been the victim of an assault? David: yes Finger print off image (distorted?) Smear blood</td>
</tr>
<tr>
<td>29</td>
<td>David: YES</td>
</tr>
</tbody>
</table>

**ILLUSTRATION 2: Finger print**
<table>
<thead>
<tr>
<th>Page</th>
<th>Scene</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>41</td>
<td>Drowning</td>
<td>farther away</td>
</tr>
</tbody>
</table>
| 46   | Mr. Edelstein | "The officer again."  
|      |          | Grave goes away |
| 47   | (Trial progresses) | Restart to p.46  
|      |          | Flip the direction  
|      |          | reverse colors  
| 49   | (Trial halted) |  
| 53   | (Trial returns) |  
|      |          | Grave becomes  
|      |          | road  
|      |          | physical lighting |
| 59   | (Standing in)  
|      | Yemek's  
|      | room) |  
| 67   | (Trial begins) |  
| 72   | (scene ends) | Grave goes away  
|      |          | -clouds move fast  

- Interactive ways to change "clouds' movement  
- Match the last road image with the first grave image  

**ILLUSTRATION 3: Grave**
<table>
<thead>
<tr>
<th>Scene</th>
<th>Text</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>Te. Mon.</td>
<td>Fabric/Color: Swirl of the fabric</td>
</tr>
<tr>
<td>32</td>
<td>Su. &quot;My brother...&quot;</td>
<td>His writing</td>
</tr>
<tr>
<td>32</td>
<td>Su. &quot;October 30...&quot;</td>
<td>His writing</td>
</tr>
<tr>
<td>15</td>
<td>Te. &quot;My Uncle...&quot;</td>
<td>Holding mask, Suwanee flies is</td>
</tr>
<tr>
<td>15</td>
<td>Te. &quot;Pulp Al Hkh...&quot;</td>
<td>Fade out</td>
</tr>
<tr>
<td>27</td>
<td>Su. Dear.</td>
<td>Violent one-mask</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Herds out of his mouth, Decay</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mask goes away, Drift of Blood</td>
</tr>
<tr>
<td>27</td>
<td>..... again</td>
<td></td>
</tr>
<tr>
<td>54</td>
<td>Mask: Violent Blood</td>
<td></td>
</tr>
<tr>
<td>55</td>
<td>Mask: Violent Blood</td>
<td></td>
</tr>
<tr>
<td>56</td>
<td>Su. March enters our room...</td>
<td>African Mask Morphing into skull</td>
</tr>
<tr>
<td>43</td>
<td>Teddy: Masr I'm happy</td>
<td>Screen B March + Violck's Gray</td>
</tr>
<tr>
<td>64</td>
<td>March/Yard</td>
<td></td>
</tr>
<tr>
<td>65</td>
<td>Mask</td>
<td></td>
</tr>
<tr>
<td>66</td>
<td>Mask starts to</td>
<td>-March try to catch it -Cracks shattering</td>
</tr>
</tbody>
</table>

- Mainly appears on the screen C.D
- Mask: African-ness that March wants to hang on
- Morphing: Mask to Skull
- Cracking: cleanup scene (pieces of cracking)
- Shattering: separated animation
- Loss: vanishing
  - Loss of recognition
  - Runs simultaneously with Teddy's story

**ILLUSTRATION 4: March-Mask/ Fabric**
<table>
<thead>
<tr>
<th>No.</th>
<th>Time</th>
<th>Description</th>
<th>Source</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>31</td>
<td>Teddy</td>
<td>I'm itching up my arm</td>
<td>Two or two</td>
<td>Size of moths, smaller than the size of a hand</td>
</tr>
<tr>
<td>32</td>
<td>Ex. 1-300</td>
<td>One</td>
<td>One</td>
<td>Moth group I (about moth)</td>
</tr>
<tr>
<td>33</td>
<td>U.O.</td>
<td>Who sticker away</td>
<td></td>
<td></td>
</tr>
<tr>
<td>42</td>
<td>Suzanne</td>
<td>(I dream of a summer...)</td>
<td>Two or two</td>
<td>Same color, shape repeat, moth group I</td>
</tr>
<tr>
<td>43</td>
<td>(Phone)</td>
<td>Daughter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>44</td>
<td>Flies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>45</td>
<td>Suzanne</td>
<td>Near her</td>
<td></td>
<td></td>
</tr>
<tr>
<td>46</td>
<td>Suzanne</td>
<td>Near her</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ILLUSTRATION 5: Moth
<table>
<thead>
<tr>
<th>Scene/Line</th>
<th>Action/Description</th>
<th>Footage</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>&quot;I yelled at the killer&quot;</td>
<td>Road fade into forest animation, moving cloud C, D</td>
</tr>
<tr>
<td>9</td>
<td>(Teddy thinking...)</td>
<td>Road 2</td>
</tr>
<tr>
<td>10</td>
<td>&quot;I couldn’t believe it.&quot;</td>
<td>Road 3</td>
</tr>
<tr>
<td>16</td>
<td></td>
<td>Road 4</td>
</tr>
<tr>
<td>18</td>
<td></td>
<td>Road 5</td>
</tr>
<tr>
<td>44</td>
<td>Teddy: Ediths expected road images over grave</td>
<td>Road: bloody grave</td>
</tr>
<tr>
<td>49</td>
<td>Trail fades road stops</td>
<td>Trail continues: Grave Road</td>
</tr>
</tbody>
</table>

- Road appears with moving cloud
- Transition to the graves

**ILLUSTRATION 6: Road**
<table>
<thead>
<tr>
<th>Frame</th>
<th>Action/Description</th>
<th>Result/Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>46</td>
<td>(Lights on Teddy...)</td>
<td>Skull 1</td>
</tr>
<tr>
<td>47</td>
<td>(Fade. Light down)</td>
<td></td>
</tr>
<tr>
<td>49</td>
<td>(Light on Teddy...)</td>
<td>Skull 2</td>
</tr>
<tr>
<td>50</td>
<td>Officer...mourns</td>
<td>Skull shames</td>
</tr>
<tr>
<td>51</td>
<td>(the other officer pulls out...)</td>
<td></td>
</tr>
</tbody>
</table>

**ILLUSTRATION 7: Skull**
<table>
<thead>
<tr>
<th>Page</th>
<th>Scene</th>
<th>Transition between scenes</th>
<th>Suffocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>39</td>
<td>Su: Dear mom...</td>
<td>Different Hands Images</td>
<td>Suffocation becomes Drowning</td>
</tr>
<tr>
<td>40</td>
<td>- Covered by dirt</td>
<td>- Transition between scenes II and III</td>
<td>- Suffocation becomes Drowning</td>
</tr>
</tbody>
</table>

ILLUSTRATION 8: Suffocation and Drowning
<table>
<thead>
<tr>
<th>Scene</th>
<th>Script</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Sure, &quot;Dear County Manager...&quot; becomes breathless, moves the table/starts to write. Pre-ego writing.</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Real right hand writing.</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Real right hand writing.</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Earth appears.</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Blinks away.</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>Sure, Dear Amy. Sits writing on the floor. Eagles' feathers.</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>What about the video tape? Writing.</td>
<td></td>
</tr>
</tbody>
</table>

ILLUSTRATION 9: Writing
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*Theatre at the margins: the political, the popular, the personal, the profane*. John W. Frick, ed., Tuscaloosa, AL: Southeastern Theatre Conference: University of Alabama Press, 2000.


**ARTICLES AND WEBSITES**


