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Evocative Communication: Selected Projects in Projection, Scenic, and Lighting Design

Milinda Esplin Weeks
Utah State University

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EVOCATIVE COMMUNICATION:
SELECTED PROJECTS IN
PROJECTION, SCENIC, AND LIGHTING DESIGN

By

Milinda Esplin Weeks

A Plan B report submitted in partial fulfillment
Of required elements for the degree of
Master of Fine Arts

In
THEATER ARTS

Plan B

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UTAH STATE UNIVERSITY
Logan, Utah

2012
Acknowledgments

First, I’d like to thank my Heavenly Father for blessing me with my talents and for helping me overcome the obstacles, both personal and professional, of pursuing this degree.

I am deeply grateful to all those who have helped me complete my graduate degree. Receiving my diploma has been a life goal, and I would not have succeeded in the task without the support of my family, friends, professors, and colleagues. Through moments of discouragement, their kindness and faith in my abilities helped lift fears and find confidence in myself.

A few people in particular have helped shape the path of my education and my life. Their guidance and encouragement has been invaluable.

I would not be where I am today if it had not been for my first mentor, Laren Sewnsen. Thank you for introducing me to the magic of theater.

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Lastly, I need to thank my family and most especially, my dear husband, Kelly. Through the late nights, stressed days, and hard years it has taken me to get to this point, your love and unwavering support has brought me to my success. I never would have accomplished all that I had set out to do without your being there. In my moments of doubt, you always reminded me that I was worth the work. Thank you.
Introduction

I didn’t always want to be a theatrical designer. As a child, I wanted to be a ballerina, an artist, a teacher. My answer to, “what do you want to be when you grow up?” changed every time someone asked me the question. Though I didn’t understand it at the time, what I wanted was to affect people. I wanted my work to create emotion and thought.

I found that reaction in the theater. Here was a small circle of people who were entirely codependent upon each other to create one large piece of art, all in the hopes of evoking an emotional reaction in the people who viewed that art.

While I possessed a talent pertaining to several aspects of the theater, the fact that I labored for my achievements in design made them that much more dear to me. I was used to being naturally good at whatever I put my hand to, and designing a product for the stage was an artistic and intellectual challenge. I struggled and pushed myself for years before I turned out a product I was proud of, a design that people were affected by. Finally, my own work evoked an emotional reaction.

As Oscar Wilde once said, “I regard the theatre as the greatest of all art forms, the most immediate way in which a human being can share with another the sense of what it is to be a human being.” This communication is what I strive to accomplish in my designs. It is always my goal to enhance and support the direction, acting, and technical elements so that the combination of all creates a shared human experience.

Through the following chapters I will strive to explain my process of design and give a detailed account of the development of my work on the productions of Issun Boshi, Proof, and Our Country’s Good.
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Issun Boshi
The Japanese tale of Tom Thumb
A Project in Projection Design
Introduction:

*Issun Boshi* was produced by Utah State University in December of 2009. Nancy Hills directed the play and adapted the script for the production. Hills’ rendition of the play had never before been produced and involved several technical elements that had never been attempted by the theater at Utah State. Giant puppets, live foley sound, and beautiful kimonos were only part of the design teams challenges for this production. I was fortunate to be able to design the projections for this play, with puppet design by Dennis Hassan, scenic design by Jim Lyden, lighting design by Anthony Johnson, sound design by Bruce Durden, costume design by Brandee Jenkins, and prop design by Trent Bean.

Synopsis:

*Issun Boshi* is a Japanese folk-tale about a small boy, *Issun Boshi*, or “Little One-Inch”. It is similar to the European folk-tale *Tom-Thumb*.

The play opens with an elderly, childless couple praying for a child, “no matter how small.” Because of their faithfulness, they are blessed with a small child, Issun. As Issun ages, he never grows; he is always “one inch”. Despite his size, Issun has a big heart and a lot of courage. In his home, he battles a rat three times his size without fear. Soon after, a messenger from the Daimyo, or King, comes to Issun’s village asking for soldiers to fight the dreaded Oni. Issun volunteers, and even though he is ridiculed, he leaves home using a bowl as a boat with chopstick oars, to fight the Oni. Issun has many adventures on the way. He meets a Kapa, rides a Koi, plays with a princess, and battles a wasp, all before finally defeating the Oni--from the inside out. In the end, he uses the Oni’s magic hammer to grant his wish to be big. As a reward for saving the day, he and the princess are married.
Design Concept:

The director, Nancy Hills, asked for projections in this show to add beauty and help change time and place. My job was to break down the show and find moments that had a change of time or place, or anywhere that a projection might be beneficial to the play. There was a lot of debate between the different designers and the director about the style that the projections should take. The look of a traditional Japanese print would not only enhance the feel of Japan, but also that of the mystical and imaginative side of the play (image 3). In contrast, a photographic style would give the production a very real world feel (image 4). As the designer, using photographs would also give me a high range of versatility since there are more photographs, with more content, than traditional Japanese prints. It was decided that in order to keep the play in a place of fantasy, all the images should resemble that of Japanese art rather than real life photographs (image 5). It was soon apparent to me that I could not cover the wide range of time and place found in the play using only the Japanese prints found, but that I would have to manipulate photographs to imitate the style.
Research:

While researching traditional Japanese art, I found many different techniques that seemed partial to Japan. One distinct style that I observed was that of the Japanese wood block print (image 6). I presented the research found of this technique, which has a defined oriental feel, to the director, along with the proposition that this be the style of the projections for the show. I felt that not only did this art form capture the essence of Japan, but that it accented the fantastical aspects of the story. The director agreed, and the Japanese wood block print became the standard for all my projection images.

Still Images Process:

The process for the design from this point was to go through the script and make a projection list, finding any spots where a projection might be beneficial in establishing changes in time, place, mood, etc. The director and I compared our ideas and came up with a finalized projection cue list which included over a dozen projections in multiple scenes and acts. I then went through the finalized projection list and found multiple images for each scene. For example, the opening scene takes place in a small Japanese village.

I found several possible photographs, then went through an elimination process. This step of the process was a little bit more complicated than simply picking an image based solely on preference. While many of the village images I found in my research were beautiful and several conveyed the essence that was desired, I found that not every photograph could be converted into the wood block print style. Once I discovered this, specific elements such as color, line, and texture became a large part of my elimination process. Taking all these elements into account, I would then repeat that elimination method until two to three images were finalized for each scene.
The next step was to try and recreate the look and style found in the Japanese wood block prints. Hours of tinkering and manipulating images in Adobe Photoshop turned out a few different products, with some more successful than others. During this work, I found that the artistic elements already present in the photograph itself, such as color, made a drastic difference in the overall outcome of the final product. The image shown here (image 7) was my first wood block recreation attempt. Although the original image itself is beautiful, the colors as well as the busy organic line of the photograph are not at all similar to the wood block research beside it. Without manipulating the hue and line of the photo, which is the reason I was drawn to the piece in the first place, it would be difficult to successfully imitate the wood block technique. Thus, as previously mentioned, specific artistic elements began to take a major role in the design; not just in the choosing of an image, but also in its manipulation. Many photographs that could be easily manipulated in the way of color, line, and depth of field were used in order to better imitate an authentic wood block image.

After finding a good image to start with, or manipulating a photo so that it would better fit the beginning criteria, several Photoshop filters including artistic cutout, artistic posters edges, and photo filters were applied to the image in different layers and different proportion depending on that photograph’s specific needs (image 8). The end result would be an image with multiple layers at different opacities, or the image repeated in different styles all laid on top of each other with some layers being more opaque, allowing the underlying style to come through.
After an imitation process had been developed and successfully applied, I then made several set and projection renderings. This process helped me to decide, in part, if frontal or rear projections would better suit the show, as well as what final images to use for each scene. I did this by, first, taking a picture of the set model by the scenic designer Jim Lyden and then taking that picture into Photoshop and combining it with my own projection images (images 11 & 12).

Practical application became the next step in this design process. Because of lack of funding and equipment, it became apparent that the projection could not be shot from the rear, and still cover all of the screens. The right equipment to do so was simply not available to the department. Ideas were suggested and experiments were used to try and make what equipment was available work, but in the end, the decision was made to use one large projector to wash the stage in a frontal projection. The director and I found that the front wash of the stage was more than sufficient for the show, and the look enhanced rather than detracted from the overall performance.

Materials for the shoji screens were then tested by the design team and director. Corrugated plastic, paper towels, packing plastic wrap, and muslin were among the choices. While it was found that the packing wrap made a better canvas for a rear projection, muslin gave the best image for a front projection and was selected for the material of choice. Luckily, no big changes had to be made to my projection images in order to accommodate this choice. The muslin remained in its uncured form and natural color, making a wonderful blank canvas for the projected images.
Film Process:

Along with still images, the director expressed interest in having a few moving or movie projections in the show during specific scenes. Early on, during design meetings, I found a movie online of a Sakura, or cherry tree, with falling blossoms (image 13). It was enchanting. The director decided at that point that the multimedia part of this production would extend to the use of movies. Five scenes were designated for the use of movies. The falling blossoms film would be used at the end of the show during the celebration and wedding, a raging inferno would be used while the Oni was attacking the city, moving clouds would be used during a few travel scenes, and the kapa spirit would mime climbing a tree while the image moved.

The process used in making a movie was entirely different from that of taking and manipulating a photograph. There are numerous programs such as Flash, Maya, Movement, Final Cut Pro, and Adobe Premier, that are used in the making and editing of movies. I had experience in filming and the editing of footage using such programs as Final Cut Pro, and Adobe Premier, but I did not have any experience using Maya or Flash which can be used to make short animated segments. These animated segments would have given the best look to the movie clips, keeping them in the same realm as the wood block prints. Because of the extreme learning curve on programs such as Maya and Flash, I decided that the desired animated movies would be purchased rather than made. The falling blossoms, fire, clouds, and the Kapa scenes were all bought. Animated movies of fire for the Oni, moving clouds across the horizon, and even the falling blossoms were simple enough to find, and a royalty-free stock movie site called Pond5.com had an abundance of each. The Kapa scene, however, was so specific in its need for timing that no stock footage could possibly fulfill all the requirements. It became apparent that a custom movie would have to be made.
Using Final Cut Pro, I took a few still images, manipulating them using the movement filters, and created a short film clip. I first manipulated an image of a bamboo forest to include a prominent picture of a bamboo tree on its left side. This is the tree which the Kapa climbs (image 14). I then created a very basic storyboard of the scene changes I would need to create using my knowledge of the actors’ blocking as a guide.

The Kapa comes on stage, and after some short dialogue, smells cucumbers growing along the banks of the river. He decides to climb the “cucumber tree” so he can reach the “yummy cucumber.” He walks toward the tree and the projection zooms in on the left bottom corner (image 15). As the Kapa mimics climbing motions, the image pans up along the trunk of the tree, indicating that the Kapa is actually getting higher off the ground (images 16-19), when in reality, he is still safely on the floor.

As the Kapa makes a grab for the cucumber, he loses his balance and tumbles toward the earth. To simulate this action, on overlay of the ground slowly fades in over the top of the tree, while the tree is panning back toward the bottom of the image (images 20-23). The ground image also has a 720 degree turn, creating the illusion that the Kapa is turning and falling uncontrollably toward the ground, which is getting bigger and coming faster toward him. After Issun comes on stage and finds the Kapa on the ground, he helps him to regain his equilibrium, and as he stands back up, the image restores to the first bamboo forest scene.

After the completion of the basic storyboard, I knew the direction I wanted to take this movie and began the actual animation process. Rather than create a new image from scratch in an animation program, I used the photos I had already edited and imported them into Final Cut Pro. Using motion tools such as speed and duration, center point, anchor point, zoom, rotation, and opacity, I was able to recreate my storyboard concepts into a film.
Kapa Tree
Basic Story Board

Image 15: Kapa tree basic story board, beginning still image

Image 16: Storyboard thumbnail 1, zoom in
Image 17: Storyboard thumbnail 2, pan up movement 1
Image 18: Storyboard thumbnail 3, pan up movement 2
Image 19: Storyboard thumbnail 4, pan up movement 3
Image 20: Storyboard thumbnail 5, beginning ground overlay
Image 21: Storyboard thumbnail 6, ground overlay at 50%
Image 22: Storyboard thumbnail 7, ground at full
Image 23: Storyboard thumbnail 8, restore forest

Image 24: Issun Boshi production photo
Production:

Projection 1, Village Scene:

The village projection was one of the most time consuming still images that I worked on. The challenge that I had with this piece was to try and date the image. The ideal image for the projection would have needed to be captured during the early to mid Edo Period of Japan, when the island was ruled by the shoguns of the Tokugawa family, running from 1603 to 1868. Sadly, no such image was available. It was possible, however, to find several images of Japanese villages that had Edo-like characteristics, and even some photographs of period homes taken years later. The downside to these recent snapshots was that modern inventions were included in the photographs. The final village image, chosen by the director, had numerous modern elements in it, such as telephone wires, paved roads, and automobiles (image 25). While eliminating all of these modern amenities would not have been an impossible task, it would have greatly extended the amount of time needed to complete the project. Instead I manipulate the streets into dirt paths, the telephone poles into trees, and then covered all of the automobiles that could be seen (image 26).
Image 27: Production photo of the village scene

Image 28: Production photo of the village scene
Projection 2, In the Bulrushes:

The bulrushes projection had an interesting development. This photograph was originally one of the photos combined as a possibility for the village projection (image 30). The director saw the image and immediately thought that it would fit perfectly in the scene where Grandma and Grandpa find Baby Issun—a scene somewhat reminiscent of the bible tale of Baby Moses being found in the bulrushes of the Nile. With that in mind, I manipulated the image to focus more attention on the rice, or bulrushes and the Japanese house, rather than on the trees and sky in the background. This helped tighten the scene and bring the focus forward toward the actors (image 31).
Image 33: Production photo of the bulrushes
Projection 3, Moving Clouds:

The clouds projection was specifically requested by the director, and the original plan was to use it in numerous scenes as a general transition of time and place. It was also established early on in the design process that this should be a movie rather than a still image. After doing research on clouds and exploring my options for moving clouds images, I found that most of the cloud films available were either animated segments or, a time-lapse clip. A time lapse is a process where the frequency at which film frames are captured is much lower than that used to view the sequence. When played at normal speed, time appears to be moving faster and thus lapsing. This allowed for greater moment in the clip, and increased the illusion of time passing at a increased rate.

The challenge for this piece came when the time lapse segment was projected onto the stage. The increased movement gave the illusion of a tropical storm. The thought of reverting back to a still image was discussed but, in contrast to the movie, a still photo was too static. Through experimentation with movie editing programs I was able to take the time lapse clip and slow the playback to one third of its original speed. This gave the illusion of time passing without the high wind speeds of a hurricane.
Image 36: Production photo of the cloud movie
Projection 4, Kapa Scene:

The Kapa movie started out as a series of still images, as previously mentioned. The process of finding and creating the correct starting image was also an interesting development. To begin with, numerous images of bamboo forests were found and created. I eventually found that my most successful image for the scene was a piece that was created using three different bamboo forests edited into one image. These images were included in the original Kapa movie design with a front view of the bamboo forest, top view looking down at the floor of the forest, and a bottom view looking up (images 37, 38, & 39).

After the first run-through with the movie and the actors together, a few changes were suggested by the puppet designer, Dennis Hassan. The first was to add a river to the ferns projection. The ferns alone did not communicate a view of the ground, so a river on the stage right side of the forest floor was made (image 40).

The second change involved the third slide of the Kapa scene; the image of the view looking up at the canopy of the forest (image 39). Both the puppet designer and the director felt that this slide was confusing. The image was cut from the movie resulting in a two image clip.
Image 40 & 41: Production photo of the Kapa movie
Projection 5, Castle:

The castle projection changed from its beginnings in a rather dramatic fashion. The original image found to be the “castle” was a photo of Himeji Castle, which is regarded as the finest surviving example of prototypical Japanese castle architecture. The castle is frequently known as Hakuro-jō (“White Egret Castle”) or Shirasagi-jō (“White Heron Castle”) because of its brilliant white exterior and supposed resemblance to a bird taking flight.

After seeing the rendering of the original castle (image 42), the director decided that she would rather have a temple that was red, as a pair of large red Japanese banners were to be used in the scene. I spent a good deal of time researching Japanese architecture trying to find the perfect building. The final image is actually an image of the Byodo-In Temple, in the Valley of the Temples on the island of O’ahu, Hawaii. It’s a replica of a 900-year-old Buddhist place of worship at Uji in the Kyoto prefecture of Japan (images 43 & 44).
Projection 6, Fire:

The fire movie came from an idea the director called “The Godzilla Moment.” The original plan for this part of the show was to film a short movie clip of a movie using a green screen and actors, then overlay the Oni puppet destroying the imperial city. This idea was soon scratched as it became apparent that the Oni would not be ready in time to make filming deadlines. At this point, I began researching images of Japanese cities and fire, eventually finding a gorgeous rendering of a Japanese town (image 47). A movie of a fire set on a seamless loop was also found (image 46). From there, I tried overlaying the image of the city and the fire, but in the end, I found the result too muddy to show any good definition (image 48). The city image was then aborted and the fire movie alone was shown in the final projection.
Image 49: Production photo of the fire projection

Image 50: Production photo of the fire projection
Projection 7, Falling Blossoms:

The falling blossoms movie is one that I found early in my research process while looking for sakura or cherry blossoms. As soon as I saw the clip, I knew that I wanted to use it as part of the final design. The movement of the falling blossoms was so graceful and the movie was wonderfully executed, the downfall was the clip was fifty dollars. In order to try and save money, I tried to recreate my own falling blossoms using the movie editing programs I was familiar with. Using Adobe Premier and Photoshop, I found an image, and using a special stamp brush in Photoshop, I recreated the look of falling petals on a layer separate from the background image. I then saved several different images with the blossom layer moved slightly in each frame. In the end my version of the clip was not nearly as successful as the original inspiration and the money was found to buy the professionally created segment (image 51).

Image 51: Screen shot of the falling blossoms movie

Evaluation:
Image 52: Production photo of the falling blossoms projection
My overall experience with the projection project has been one of trial and error. Having never worked with this type of multimedia presentation in a theater setting, and not really having anyone in the department who had either, meant that I was in uncharted waters without much of an idea where to direct my efforts. Because of this, I wasted a fair amount of time working on researching and editing pieces that never made it any further in my process than storyboard ideas. Having learned from this experience, any future projection projects will be organized and executed a little differently. The early stages of the process in particular will be different—deciding when, where, and what projections will be needed. I spent the first half of my process during this project working on images for scenes that were not given a decision of yea or nay until much too late in my process. I simply need to be more assertive in the future and make sure that I understand what the director is thinking early on in the design rather than later.

I do feel that the project taken as a whole was very successful. The projections not only added some definition to time and place in the show, but they also added to the beauty of the overall piece. I was very pleased with the way several of my projection images looked on stage with the actors, and I believe that their use added to the atmosphere and execution of *Issun Boshi* as a whole.
Appendix A
WORKS CITED


Manipulated bamboo forest. Personal photograph by author. 2009.


Production photo, Issun Boshi, Logan UT. Personal photograph by author. 2009.


Projection, In the bulrushes. Personal photograph by author. 2009.

Projection rendering, at the shrine. Personal photograph by author. 2009.

Projection rendering, Bamboo forest. Personal photograph by author. 2009.


Projection rendering, fire and village overaly attempt. Personal photograph by author. 2009.

Projection rendering, ground ferns. Personal photograph by author. 2009.

Projection rendering, ground ferns with river. Personal photograph by author. 2009.

Projection rendering, In the bulrushes. Personal photograph by author. 2009.


Screen shot, clouds movie. Personal photograph by author. 2009.

Screen shot, falling blossoms movie. Personal photograph by author. 2009.

Screen shot, falling blossoms. Personal photograph by author. 2009.

Screen shot, fire movie. Personal photograph by author. 2009.

Shrine woodblock recreation. Personal photograph by author. 2009.

Takeji, Asano. Snow at Iwashimizu-Hachiman Shrine, Kyoto. 1952. Woodblock color print.


Woodblock recreation process. Personal photograph by author. 2009.
Proof

A Project in Scenic Design
Introduction:

Proof is a Pulitzer Prize winning play written by David Auburn. The play was produced for the black box theater at Utah State University as the first show of its 2011-2012 season. It was directed by Adrianne Moore, with lighting design by Bruce Durden, sound design by Truxton Moulton, technical direction by Josh Wilson, and scenic design by Milinda Weeks.

Synopsis:

In Chicago, on the day of her twenty-seventh birthday, Catherine is visited by her sister Claire for the funeral of their father Robert, who had passed away a couple of days before. He was a brilliant mathematician before mental illness claimed his mind, and Catherine had lived with him for the last five years. Throughout that time, she has become reclusive, quitting her studies, and is concerned about having inherited her father’s insanity. A mathematician from the University of Chicago, Hal, comes to Catherine’s house to search through Robert’s notebooks, trying to find any written work that Robert might have produced in moments of lucidity. Catherine gives him a notebook with the development of a unique mathematical theory. Hal and Claire believe that it is Robert’s work, but Catherine claims that she developed the math Proof. The play explores Catherine’s fear of following in her father’s footsteps, both mathematically and mentally and her desperate attempts to stay in control.

Image 1: Production photo of Proof
Design Concept:

When I first met with Adrianne, she told me that she didn’t have a strong vision about what the set needed to look like. It had be a porch, as the script dictated, but I could do something as abstract, skeletal, panoramic, or realistic as I desired.

From here, the journey that I took with this design became slightly nonlinear. All I knew for certain was that I didn’t want to bring a realistic design to the stage. Instead, I desired to create something that reflected the state of mind of the characters. However, on more than one occasion, I would bring my preliminary work to the director only to be told that the design was a little too abstract, and that I needed to base the overall look in a more realistic realm. Throughout the process, several revisions were made to the design concept, causing me to go back to the drawing board, find new research, and design something different.

Eventually, my director told me that she wanted a set that would not draw any of the attention away from the actors. I admit that this constant change caused me some frustration when trying to rethink my design. I found myself staring at a piece of paper for so long, trying to re-imagine it once again. What ended up saving my own sanity, was the decision not to redo the entire design, but change individual aspects of it that would help to bring back the realistic look that the director wanted.

I didn’t want to abandon my original concept altogether, so from here my design choices became much more about the details of the set. The question I was constantly asking myself was, “How I could make the set realistic and still help communicate the emotional turmoil of the script?” That became my concept of design. I wanted to reflect the skeletal and abstract nature of the insanity that plagued these characters’ minds, especially Catherine and Robert’s, while still keeping the overall design in a completely grounded and realistic setting.
My first wave of research began with the practical requirements of the script. I looked at images of houses. The exact date that this home was built is never specified in the script. I began a game of deduction to figure out exactly what time period I should be looking at. By looking at the text, I found that this house was built by the university, that the family had lived in it since Catherine and Claire were little girls, and that there are several amenities in the home that are out of date. I concluded that the family had been living in the house since at least the 1970’s and it was probably not a new home when they moved into it. It must also have been located somewhere near the university.

I began my google map search with these thoughts in mind. I typed ‘University of Chicago’ into Google Earth and then began virtually walking through the streets near the university looking at the homes (image 2). From this search, I noticed that the homes that were in a closer proximity to the University were generally older than the homes located a few miles away. That helped me to narrow down a build period of approximately 1930-1950. Once I had a tentative date and the location, the Craftsman Chicago Style Bungalow home became prominent in my research. The style fit the time period, with its popularity peaking around the early 1940’s (image 3). In one source, I found this paragraph describing the homes in detail:

“Here a new style of house, unprecedented in the previous century, provided Chicago homebuyers of moderate means with extraordinary levels of domestic comfort made possible through Innovative systems of heating, plumbing, and...”
electricity. Generally rectangular in plan, with the narrow end facing the street, the bungalow mass was dominated by low-pitched overhanging roofs. The front elevations had face brick, often with stone trim, while the side and rear walls were constructed of common brick. Expansive front windows, often grouped into single architectural frames, flooded interiors with natural light. Porches generally opened to the front and the rear of the house.” (Sonoc, Scott., 2)

Here was a style that offered all of the practicalities I needed to support the script as well as interesting architectural detail: older home with dated amenities, brick exterior, large windows, porch on the rear of the house. I also knew that the Bungalow style would allow me to add some interesting Arts and Crafts details.

I started researching the Chicago style craftsman bungalow in earnest. As I was doing so, my assistant, Mauri Smith, brought me some of her own research, most of which had little to do with the architecture of the home and more to do with the issues of insanity as they are discussed in the script (image 4). I asked myself, “How could I have missed this?” I was looking so heavily at the practicality of the set that I had ignored the emotional aspects. Here I decided that I wanted to create something that reflected the minds of the characters, rather than the literal interpretations of the script. This is when things started getting difficult for me.

As I had ignored everything other than the layout of the house to begin with, now I was looking at everything other than the foundation on which every design must be based. I got caught up in details that drove my design away from basics that I had not yet even decided upon (image 5). One detail in particular had caught my attention, and I allowed everything I did to revolve around this one idea.
A combination of things led me to the idea, including my own research on mathematics, but more significantly, a comment my mother made to me. We were discussing the script for this show and what I was doing with the design, when my mother said something along the lines of, “Oh, I imagine that there were mathematical scrawlings all over his house. Across the walls, on the windows. Like in that movie *A Beautiful Mind.*”

And at that I was stuck. Those two sentences sent my mind reeling toward a picture of the set that would not leave me. I could imagine a house that was framed with wood, but all of the wall area was built out of some sort of sheer material, possibly plexi glass or a scrim. Then, rather than painting a brick texture, all of the detail of brick would be made out of text, specifically mathematical formulas. At times, when the lighting designer chose to, he could backlight these walls revealing the math *Proofs* surrounding the audience.

I looked at research of framed houses, barns, and half timbered homes. I looked at commercial buildings framed in glass, insane asylums, buildings that had crumbled and deteriorated due to natural elements, mathematical sculpture, anything I thought might help me to capture this vision searing behind my eyes (image 7).
Once I had found a good deal of research, I began tinkering around with thumbnail sketches. My professor, Shawn Fisher, gave me a thumbnail template of the black box and I began drawing. I tried to complete each of my sketches in less than five minutes. I was working in basic shapes, and keeping a loose sketch-like quality to the overall appearance. The idea is to produce a variety thumbnails quickly. Try as I might, all of my thumbnail sketches turned out looking rather similar to each other. To one degree or another, all of them had the plexiglass or scrim element stretched over a basic house frame (image 8). I decided to implement this idea and carry it through. I brought my favorite set of thumbnail sketches to Adrianne, to get her input about the design as it now stood.

This is where I was met with the first request for revision. I wondered how I might rethink the design, without having to redo it entirely. I decided to go back and gather more research to help solidify the foundations of the design, after which I would concentrate on the details I had become so enthralled with.

Image 8: Thumbnail sketch
Research II:

For my second wave of research, I forced myself to find my foundations again. I looked at houses, back porches, and yards until I found something that inspired the basic necessities of my design. I picked up where I had left off by looking at Chicago bungalows. This time around, I not only found my research by looking at online sources or library books, I began to notice that the Chicago craftsman style bungalow had found its way to residential architecture in Utah. I spent several hours driving around town, analyzing the architecture of bungalow and Arts and Crafts homes (images 10-11).

My approach from here was a little eclectic. I separated my research in a very spliced and diced fashion-- taking individual aspects from the homes that I found, and separating them based upon those aspects. For example, there were photos where I specifically liked the pillars of the house, and others where the brick caught my eye. I compiled all of my images into categories and began sifting through them until I found the similarities. If there was a specific element that I was drawn to, such as a style of door or pillar, I tended to find it frequently throughout my research. I took these details and reinterpreted them for my design of Proof.
Once I had separated my research into categories and identified several qualities I intended to use, I started work on another round of thumbnail sketches. I found that working on my thumbnails in a paper and pencil medium was limiting. My skill with a pencil has never been as strong as I would like. Therefore, for my second batch of sketches, I decided that working with a computer as my medium would be more effective.

I initiated this process by taking the photos that I had set aside in my previous research stage. Then I began digitally taking the elements I desired from each photo, compiling them to make a complete sketch using Adobe Photoshop.

Stubborn as I was, I was not yet willing to completely give up on the idea of the mathematical proofs being an integral part of the design. I thought that the use of cutouts might communicate the emotional and artistic aspects of the proofs I desired to share with the audience, but still maintain the authentic qualities of a house that the director was looking for in the design. The image below was a beginning exploration of this idea using Photoshop (image 12).
Another major feature I worked on during this stage in my process was the exploration of a ground plan. I have always found it helpful to make thumbnail sketches of possible ground plans early on in my design. I found it to be particularly important for this design because of the nature of the theater.

The black box which we were using as the theatrical space for this show did not have a defined audience arrangement. I was specifically told by the director that I needed to increase the number of seats in the space, and change the center line dividing the audience from its current angle.

This was a completely new experience for me. I had never had to design a show in a space where the seating was not already dictated to me. I found the freedom that this presented to me to be intimidating. I suddenly felt that I had so many more responsibilities than that of a set designer.

I approached this challenge by working with the seating arrangements in my ground plan sketches. Generally, I would have known where the audience was to sit and I would base my design off that arrangement. In this case, I did the opposite and tried to let my design dictate the seating (image 13 & 14).

Through this process, I found myself continually coming back to one particular arrangement. I designed the set in a rectangular fashion and placed it in the upstage left corner of the theatrical space. I then surrounded that set on three sides creating a thrust stage where the majority of the action would take place.

This not only allowed us to incorporate nearly thirty more seats into the audience, but it moved the dividing center line from the corner it had previously sat in to the center of the room.

Image 13: Exploratory Photoshop ground plan thumbnail
Image 14: Exploratory Photoshop ground plan thumbnail
Upon making a decision about the location of the audience in relationship to the set, I started to create variations of the scenic ground plan in my thumbnails.

I wanted to make sure that I followed the same basic layout in all of the sketches I created-- keeping the shape of the rectangular home the same. The feature that I focused most heavily on was the playing space of the porch.

I used my Photoshop sketches to help me explore the different possibilities. I accomplished this by creating a basic template of the black box. This template included the audience seating as I had arranged it and a basic location and shape of the set (images 15-18). I then used different shades to distinguish between the location of the house (white), door and windows (dark gray), and porch (light gray).

Throughout this process, I debated where I should put the door, windows, and stairs, and whether I should make the porch continue across the full length of the house, or confine it to a smaller section of the stage. Using Photoshop allowed me to make detailed changes to the layout quickly. I was able to explore several different ground plan options, eventually deciding on one that would become the origin of the rest of my design.
Model:

Once I had pinpointed the foundation of my design, I went straight into working on a white model. Using the digital thumbnail sketches as a reference, I started on the construction of the model in 1/2” scale. I built the model much like a contractor would build a house. I began with the foundation of the porch and steps, constructed a frame for the walls, covered them, and then added windows and doors.

A mixture of materials including foam core, balsa wood, bass wood, glues of several varieties, plastic grid sheets, cereal boxes, card stock, tulle fabric, Kleenex tissue, illustration board, acrylic paints, water colors, and molding paste were all used to create the first portrayal of the set.

When finished, this white model was a little unorthodox as it was not actually white (image 19). At the same time I began this model, I also began work on the textures I would need for the completed model. As I finished these textures early on, I decided to incorporate them into my preliminary model. I felt that this would allow me to identify any changes that needed to occur sooner rather than later. It was during this developmental stage that I began making final design decisions.

Image 19: Photo of the original model, including audience seating
Ground Plan:

The layout of the porch was something that I had worked on continuously throughout the entire design, I finally came up with a ground plan I believed would fit the practical and artistic elements of the play. The basic shape of the platform that served as the porch was simply that of a rectangle, with the stairs of the unit jutting out the front (image 20). The walls of the house then separated the platform into an interior and an exterior space. The section that became the exterior, and therefore actual porch, had a decided L shape to its design.

Perhaps the most unusual design choice in the blueprint of the house was that of the wall on which the back door was hung. I found as I began to design this set that I was having a difficult time working with the sight lines of the audience. I had originally thought to design the house with a setback in a fashion I had seen in much of my research. In this design, the porch was approximately 3/4 of the full width of the house. The other 1/3 extended forward creating a little protected nook for the door (image 21). This was the most typical blueprint that I found in my research images, and I originally intended to follow it. I found that this house with all right angles created a barrier for anyone sitting in the audience house left seats. They were completely blocked by the extended section of the house and would not be able to see any of the entrances or exits through the door.

For this reason, I decided to extend the porch further to stage left, helping to open up the sightline issues. I also decided to put the door on an angle that was not parallel to any of the audience seating, allowing a better view to more of the audience.
Brick:

After building the porch and creating the framework for the walls, I started work on the texture of the exterior of the house. Nearly all of my research showed that the Chicago craftsman style bungalows were made of brick, with the few exceptions showing stucco (image 23). The style of the script seemed to lend itself to a brick rather than stucco, thus brick was my choice for this design.

While gathering research images online and in my research drives through Utah, I noticed that brick can take on several different textures, and aged brick had a very distinct look. I decided more research was needed, specifically on brick this time. I wanted to make sure that the texture I brought to the stage was at least fairly accurate to the period of the house; both in the manufacturing of the brick, and how it would have weathered over time. The textures that I found the most interesting were generally slightly too dilapidated to have been the brick of the house I had designed.

I decided on a brick that was slightly older than the period of the home. It gave the house a look that was not too decrepit, but also had some character to it. I also used the slightly older than period look to enhance the cutout design I was going for through the use of missing brick (image 24).

After deciding on the style of brick, I started a search for a digital brick texture that I could manipulate easily for my model. I came across a large jpg file that was just about perfect. It had a good texture to it, there was a nice variation of color, the brick was not too warped, and the picture was taken straight on so it could be easily duplicated and turned into a large enough image to cover an entire wall of my model. The part of the image that I found to be substandard was the overall color.
The original image was a bright firehouse red, bordering on coral (image 25). The colors were so vibrant that they gave a spry and playful feeling to the house. It felt much too bright to be the home of a genius and insane mathematician. Because it was in every other way perfect, I wanted to try and manipulate the colors until I had a more fitting palette. I took the original image into Photoshop and began playing around with the hue, adding filters, and changing the contrast of the image until I found on an earth tone look that would fit the tone of the play (image 26).

After changing the color, I duplicated the image several times over and found the areas where the pattern repeated itself, so I could butt the duplicated image up next to the original with a sort of seam appearing. In this manner, I created a brick texture that was large enough for me to cover the framework I had already built in my model.
Image 28: Production photo of *Proof*
Arbor:

One of the most distinct aspects of a bungalow home are the gables. The height, number, and angle of the gables on a house can help distinguish the exact style of the architecture. I started off my design with two gables on my set, but the more I thought about those gables, the more I realized that I was working in a black box with a total ceiling height of fourteen feet with two of those feet being occupied by lighting equipment. My porch had three steps leading up to its twenty-four inch elevation, and my wall heights were sitting on top of the porch and measuring in at eight feet. I had no idea at this point how to incorporate a gable in the space allotted me.

Once again, I went back to my research looking for anything that would allow me to finish off the roof of the set without having to put a peaked gable on top of it. I began to notice an interesting detail in a few of my saved images. Some of the undersides of the gables and porch roofs were unfinished and allowed the supporting beams to be seen (image 29 & 30). The look was a little reminiscent of a garden arbor.

I decided to see if I could use this to my advantage. I began designing a trellis that was a cross between an actual garden arbor and an unfinished porch roof. With this, I could finish off the top of the set without having to add additional height. What really made me excited about this element was the fact that with an unfinished roof of this nature, I could give the lighting designer something dynamic and interesting to work with.
Image 31: Detail photo of the arbor made for the model

Image 32: Production photo of *Proof*, detail of the arbor
Door:

The door was one design element that I used to help establish that the side of the house that the audience saw was, in fact, the back. I wanted to create something that the audience could relate to, something that they might remember from their own back porch. Nearly every house I lived in as a child had one thing in common when referring to the back porch-- the door heading outside was always a double door with one paneled door, and one screen door. I used this memory and began looking for more detailed research to help support it. The door that I eventually decided to use for my design was heavily influenced by a single research image (image 33). This image had both the panelled door and the outer screen door, was historically accurate, and I found it to be aesthetically pleasing.
Window:

As with the other main elements of my design, the window for the set was heavily inspired by my research. I found a lovely image of an interior of a craftsman style home, with a view looking out through the windows (image 36). I was able to identify key details that I wanted to reproduce in my own set-- namely, two sash windows sitting side by side to create the illusion of one larger window. I appreciated the large scale of the window, feeling that it would add diversity to the otherwise solid brick wall, create a portal to the interior of the house, and provide the lighting designer with a wider variation of lighting moments.
Pillars:

The pillars of the porch were designed after a style that I noticed on dozens of Bungalow homes. They use a brick base, a wooden platform that is wider than the square brick pillar it sits on, and a tapered, wooden pillar that extends to the roof (image 39).

I chose this style specifically for its segmented design. The brick base grounded the pillar, and allowed the house to gain a feeling of age that could not have been achieved with the use of a completely wooden pillar, while the use of the tapered wood on the top half of the pillar allowed more visibility to the audience than a wide brick column would have permitted.
Railing:

The railing I designed for the set was one of the few elements that was not pulled directly from an individual research image. As I was working on the model, I noticed that the set was looking unfinished without some sort of railing surrounding the porch. As I began looking through my research for inspiration, I found several porch railings that I liked, but all of them included dense fretwork in their design. They would not be easy for an audience member to see through. Sight line issues had already begun to prove a problem in the space, and I knew that the director wanted to block some of the action sitting on the porch. If the actors were going to be sitting down, I didn’t feel I could block 3/4 of their bodies and not have the audience annoyed that they couldn’t see what was happening.

Somewhere in the back of my mind a memory of a porch with only a steel pipe as a railing began to surface. I looked back over my research trying to figure out where I had seen this image. It wasn’t until I was talking with my father that I realized the house I had remembered seeing this sort of a railing on was my grandparents’. As my grandmother began having trouble walking up and down stairs, my grandfather added a steel pipe railing to the front porch of their home. It was simple, functional, and unobtrusive. This was exactly the sort of look I wanted for my design. The steel pipe railing added a small measure of finish to the set without seeming over-designed or obstructing the audience’s view of the action on the porch (images 42 & 43).
Fence:

The fence was a detail that I added to the set for a few different reasons. First, I thought that it might help establish the area of backyard versus front yard. Second, I wanted something that would help create a portal for the actors’ entrances and exits from the stage right door that was part of the theater and within the audience’s view. Lastly, I needed something to help break up the black monotony of the upstage right wall. I wanted to disperse the solid mass without drawing too much attention to the element itself. A fence seemed like the logical answer. It could fit into the set without seeming out of place and accomplish all of the requirements needed.

I looked at several styles of fence in my research. When I first began this process, rather than finding the one photo that gave me my design, I noticed several things that I did not want my fence to be. I did not want it to be made out of vinyl, chain link, or wrought iron. I didn’t want anything that looked new, or that had been meticulously cared for. From this process of deduction, I was able to determine that I wanted a simple wood fence that had some age to it. I began researching this kind of fence until I found an inspiring image that led me into my design (image 44).

I designed two different lengths and styles of fence for this project. The first fence stood about four feet tall, sat right back against the upstage wall and covered approximately fourteen feet from the end of the set to the corner of the theater. This fence also had a non-functioning gate in it as I thought the detail of the gate might help establish that this was a backyard (image 45).
The second fence I designed was made to butt up against the end of the audience seating on the stage right side of the house. This allowed it to sit just downstage of the booth door that sat along that wall of the theater. This is the design I ended up going with as it allowed me to accomplish all of the functions of the fence (image 46).

Image 46: Detail photo of the fence constructed for the model

Image 47: Production photo of Proof, fence in background
Patio:

The patio was not an original part of my design. In the earliest stages of my process, I had thought to leave the stage floor very simple with maybe a scumbled paint texture of rustic earth tones. As I went on with my design, however, I had several people who had never seen my model, but knew the play, ask me how I was going to design the grass of the back yard on my set. While I had justified the lack of any grass texture in my model, it seemed apparent that this missing element would not communicate itself well to an audience.

I turned my thought process back to grass. I had very briefly considered a lawn at the very beginning of my design, but had almost instantly disregarded the idea because creating a grass texture would have been difficult. I didn’t see how I was going to make the look of grass at all convincing in the close proximity of the black box theater without laying sod on stage.

At this point, I racked my brain before hitting on the idea of using a patio. I had to mull this concept over several times in order to come up with a viable plan. I would use a brick patio, which seemed to be a very logical and pleasing solution. I could use the patio to help establish playing space, and the use of brick would not feel out of place in the design, but would actually help create a symmetry to the set while eliminating the need for any grass.

I began my research on patios. I specifically studied brick sizes, textures, and patterns. In my search, I found a very informational web site that had wonderful visual references about the most common patterns a bricklayer would use when building a patio (image 48). After reading over this information, I was able to identify what sort of brick work I wanted the patio on my set to be laid in. I made my decision through an elimination process. I didn’t like the look of the jack on jack or the running board patterns, thinking that they resembled the house brick a little too
much as well as being slightly boring overall. This left me with herringbone and two basket weave styles. I was initially drawn to the herringbone. I had always liked the sense of movement that a herringbone arrangement possessed. However, when I put the herringbone pattern into the model, it seemed very busy in comparison with everything else on the stage. The house up to this point had a nostalgic quality to it, which was lessened by the introduction a design that had a feeling of action.

I knew that if the herringbone had caused such a dissonance in the design, it would be impossible for me to use the diagonal herringbone, which had an even greater feeling of movement to it. After the elimination of the most boring and the most energetic designs, I was left with the middle ground of the basket weave and the half basket weave. When studying the first of the two designs, I noticed that it had a self-similar pattern, meaning that the pattern was the same from near as from far. No matter how large the basket weave pattern was, I could still identify the geometrical structure of the squares that made up the design. Within those squares were several more making up smaller and smaller squares, much like a fractal. I realized that this was probably a detail that no one in the audience would ever notice, but it helped me to make my final decision on the pattern of the patio. I chose the basket weave pattern.

I actually made the patio of brick for my model from scratch. Instead of finding an image of a patio with the pattern and coloring that I wanted for my set, I created the bricks in Photoshop, and laid them across my screen much like a mason would lay his brick (image 49).

Yet another problem arose with the basket weave. This second patio wasn’t fitting perfectly into my model either. This time, though, it was not the sense of movement presented by the arrangement of the bricks, but that they looked too pristine next to a house that had been designed to look as if it had been neglected for several years. I needed the patio to look as weathered as the brick of the house- possibly even more so since the patio would have more wear from the elements and high traffic.
I looked back at the brick texture I had made, the research I had found, as well as the preliminary computer sketches. I decided to try and bring the same fragmented look that I wanted to create in the brick of the house into the patio. By doing so, it would allow me to create an image with a little more interest to it, but something that wouldn’t feel out of place or too busy within the overall design.

I cut bricks out of the patio concentrating on the down stage left corner and then feathered the lessened amount of cutouts out gently as I traveled across the page. The cutouts exposed the abstract paint texture underneath the patio, which I then partly filled in with natural debris (image 50).

Image 50: Detail photo of the patio constructed for the model

Image 51: Production photo of Proof
Cutouts:

Creating the cutouts of the missing bricks behind which the math proofs would appear became the next task in my process. I had already chosen bricks at random to literally cut out of the printed texture I had already built. I tried to create a spattered look that was not too consistent in its design, nor too dense.

Actually cutting the bricks out was not too difficult, but I did have a hard time trying to figure out how to make the math proofs work correctly in the model. Not only did they need to be to scale, but the idea I was trying to communicate was that the proofs would be virtually invisible to the audience until the lighting designer chose to backlight them revealing the math proofs. After some deliberation and a terrible experiment with written text in 1/2” scale, I chose to make a computer light rendering portraying the idea I was trying to communicate.

I took my model into a room with no windows, turned off all the lights, and recruited a pair of hands to hold a flashlight in such a manner that it backlit the set while I took a photo. After that, all I had to do was take that snapshot into Photoshop and work with the lighting on a minimal scale. I created several math Proofs by simply using the text tool, typing them, and changing the font until I found one that looked like slightly sloppy penmanship. I then converted this layer into an image file, rather than a text-based file, and began manipulating it in the photo until I achieved the desired look (image 52).
Drafting:

Once I had completed the model to this point, I began drafting using the model as my guide. I started with a ground plan (image 54). Once I started drafting the house into the ground plan I found a few elements that I felt needed to be changed. One of the first changes that I made was to shorten the length of the house. I cut out the stage left wall entirely, and moved the entire porch over about five feet (image 52 & 53). This allowed the stairs to sit much closer to center stage and the size of the set felt more balanced with the size of the room. After creating the ground-plan I was able to use the it as the starting point for all of my front and side elevations.
It was at about this period of my design that I took the model and rendering in to the director for approval. In hindsight, if I had taken my work in earlier, the next revision of the set would have been much easier, but in reality, there were not many changes that I had to worry about. There were a few changes to be done to the ground plan, but the biggest change came at the request to eliminate the cutouts in the brick and the math *Proofs* altogether. The director explained that she wanted nothing to distract from the words of the script and she worried that a set that was too abstract would ruin the fragmented sense of memory that the playwright presented to the audience.

I was a little disappointed. I felt that the one element that would make my design of *Proof* unique had disappeared entirely. Still, creating a design requires collaboration, and rather than sulk, I tried to find a way of reflecting the qualities of emotion that the *Proofs* would have brought to the set in a completely realistic fashion.

Rather than make these initial changes in my model, I went straight to the drafting I had just finished and made all the changes requested there. I did this so that the shop could begin the build of the set. Changes included adding to the stairs so that they came off in the corner of the porch. As a result of this, the pillar that had originally been located stage right of the stairs was moved upstage (image 55).

The pillars themselves were redesigned (image 56). The brick section became shorter and the overall pillar was narrowed by several inches. The reason for this was so that the pillars would not become a sightline issue to any audience member who happened to be situated with the pillar blocking the line of sight to an actor.

The other major change to the set was in the paint treatment of the porch. I had originally designed the entire porch to be poured cement. However, I had also added a facing to the porch that looked like a rose trellis. Though I hadn’t noticed the contradiction of a solid
cement porch sitting on top of a wooden garden trellis, fortunately, my professor, Bruce Durden, did. I changed the paint treatment of the porch so that the overall mass was designed to look like wood, with only the stairs remaining cement.

Adrienne and I debated the practicality of the arbor. It was brought up that Chicago receives a lot of snow during its winters, and that it would be strange for anyone to have an unfinished porch roof. It was suggested that I cover the trellis, making a roof piece that would fit the location of the script. The arbor, however, was a major piece of scenery that I felt helped to reflect the emotional qualities I wanted to bring to the stage. It had a fragmented and unfinished quality to it that reflected the minds of the characters and the script beautifully without seeming too heavy or abstract. My design advisor, Shawn Fisher, came to the rescue here. He and Adrienne discussed the style of the arbor and he mentioned that while this design choice was uncommon, it was not completely imaginary and that some homes did, in fact, have an arbor as a porch roof.

Upon completing the requested changes in the drafting, the production began its build process. Some time later, I was able to come back to the model and finish it with the changes made to the design.
Production Process:

My involvement with the production became rather limited after the design work had been completed, because I was offered part time work as an adjunct professor at Snow College, which was about a four hour drive south of campus. While the set designer typically has very little to do with the build of their own show in the professional world, this is not typical of academic theater. I had a hard time leaving my design in the hands of my assistant so entirely, though. Fortunately, my assistant, fellow graduate student Spencer Potter, was relentless in his pursuit of perfection for this design. While I was away from the project, he acted as the mediator between the director and myself, relaying any information or problems. It was largely due to his efforts and the technical director, Josh Wilson, that the build, paint, and set dressing portions of this production went so smoothly.

The outcome of the combined work of all was a set that was rich in texture, detail, and an atmosphere that sucked the audience into the story before the actors even appeared on stage.

Image 58: Production photo of Proof
Production Photos

Image 59: Production photo of *Proof*

Image 60: Production photo of *Proof*
Evaluation:

*Proof* opened on September 22 and ran through October 1, 2001 to sold-out crowds. I remember sitting in the audience on opening night and listening to patrons around me whisper about the set. I don’t remember a single negative comment. A few days later, the actress who played the lead role of Catherine told me, “The first thing my family said to me after the show was ‘That set was so incredible!’” Everyone involved in the process was delighted with the final product.

I took this design to the American College Theater Festival that was held at Weber State University in February, 2012. My design was described as elegant, beautiful, abounding in detail, and exactly what the script called for. I was also told that the process which I went through to create the final set was like tempering a piece of pottery in a kiln, it comes out all the more beautiful for the fire.

The development I went through to find that final product may have been a little hectic. It certainly did not follow the typical mapped progression of linear points. I remember thinking at one point that I was jumping back and forth and around so many times I was dizzy from it all. But I have to agree with my judges that the outcome was a set that was stronger than what I had originally intended.

What more could I have asked for than to have the set communicate itself to the audience so effortlessly the way it did? The overall collaboration between the director and all of the designers, and the way they supported each other’s decisions created one cohesive piece of theater. The design enhanced the actors’ presentation of the beautiful words of this Pulitzer Prize winning play and it was a particularly rewarding experience. While the design may have changed inside out and upside down from beginning to end, the goal set down for myself from the beginning of the process was still achieved.
Appendix B
Screen Door set into wall.
6 panel door set behind wall with stage brace.
Note: Screen door opens out.
6 Panel opens in.
Wall 4

Sectional D side of wall 4

Front

Side

Top

3'-10"

Proof

Utah State University
Caine College of the Arts - Dept. of Theater
USU Studio Theater

Wall 4 Elevations
Director: Adrienne Moore
Set Designer: Milinda Weeks
Technical Director: Josh Wilson

Approved: Date: Rev. Date: Dwg. No Scale:
July 5, 2011 9 of 16 1/2" = 1"
Wood column tapers from 10" square to 6" square

Hand rail is 2" diameter steel pipe (pvc?)
Randomly broken fence posts. Refer to Research image.


Drafting, Original ground plan. Personal photograph by author. 2011.

Drafting, revised pillar. Personal photograph by author. 2011.

Drafting, revised stairs. Personal photograph by author. 2011.


Finished scale model. Personal photograph by author. 2011.


Model photograph, brick detail. Personal photograph by author. 2011.


Model photograph, door detail. Personal photograph by author. 2011.

Model photograph, fence detail. Personal photograph by author. 2011.

Model photograph, pillar detail. Personal photograph by author. 2011.

Model photograph, railing detail. Personal photograph by author. 2011.


Original Fence Drafting. Personal photograph by author. 2011.

Original white model. Personal photograph by author. 2011.


Production Photo, Arbor Detail, Logan UT. Personal photograph by author. 2011.

Production Photo, Door Detail. Personal photograph by author. 2011.

Production Photo, Pillar Detail. Personal photograph by author. 2011.
Production Photo, Railing Detail. Personal photograph by author. 2011.

Production Photo, Window Detail. Personal photograph by author. 2011.


Screen shot, photoshop patio. Personal photograph by author. 2011.


Our Country’s Good
A Project in Lighting Design
Introduction:

*Our Country’s Good* is a Tony Award-nominated play written by British playwright Timberlake Wertenbaker. Utah State University produced this play in its 2010-2011 theatrical season. It was directed by Adrianne Moore, with scenic design by Rufus Zaejodaeus, technical direction by Matt Stowe, sound design by Benjamin Bielefeld, costume design by Nancy Hills, prop design by Molly Pack, and lighting design by Milinda Weeks.

Synopsis:

*Our Country’s Good* is the story of convicts and Royal Marines sent to Australia in the late 1780’s as part of the first penal colony. It follows Second Lieutenant Ralph Clark’s attempts to put on a production of George Farquhar’s restoration comedy, *The Recruiting Officer*, using a cast of male and female convicts. The play is met with extreme opposition throughout its production and only just makes it onto the stage. The play shows the stark differences in the class system of the convict camp and discusses themes such as sexuality, punishment, the Georgian judicial system, and the idea that it is possible for ‘theatre to be a humanizing force.’
Design Concept:

When I came to this production as the lighting designer, the scenic designer, Rufus Zaejodaeus, and director, Adrienne Moore, already had a strong direction for the production and there were several specific concepts and elements that they wanted to communicate to the audience. Two major aspects were the harsh and vast nature of the land due to the heat and wide open space, and the incredible difference in the class system that the colony tried to cling to, but that lessened through the course of the play. Rufus therefore designed something that was abstract and skeletal that could be manipulated by light in order to change location and time. The sparse, fluid makeup of the set also helped to convey the wide nature of the land the penal colony occupied while still allowing the words and the action to be the true focus of the play. I, in turn, took those aspects and created a design idea based heavily on elements such as angle, intensity, texture, color, and size.
Research:

I began my research by looking at images of Australia (image 4 & 6). I wanted to visually understand the immense character of this land as it is described by Dabby in the script as, “the life in the flat, brittle, burnt-out country!” (Our Country’s Good, page 39)

I also researched England to be sure that I understood the differences in the qualities of the light between these two varied world regions (image 7). I felt that understanding the differences would help me to portray Australia more accurately. Studying the contrast between England and Australia, I began to notice the extremely high contrast and direct light found on the southern continent versus the soft reflected light found in England. I took several of my favorite contrasting geographical photos and uploaded them into Adobe Photoshop where I began working with different filters. I especially put into play a lot of saturation to make a black and white photograph (image 8). Through this process, I noticed a constant light quality in the Australian photos that reminded me of an artist that I had studied in photography classes. By transferring the photographs into black and white, the prominence of the singular direction and intensity of the sunlight created a high contrast look that was strongly revealed and was reminiscent of the work of Ansel Adams (image 9). Once this realization came to my mind, I instantly began doing research on Adams and his works. I continually found his photographs to be inspiring as well as an accurate portrayal of what I wanted to create on the stage.
Image 10: *Our Country’s Good* research collage
Design Process:

Once I had finished my research, I began drafting, picking gels, and creating renderings for production. Because I had such a strong foundation of research to build from, the next steps in my design process were relatively simple.

My goal for this design was to recreate an evocative portrayal of my research on the stage. I wanted to design lighting that would enhance the abstract and non-specific scenic elements in order to create an Australian landscape. I also wanted the lighting to be subtle so that the actors would be able to highlight the stark difference between persons of privilege and poverty. The first thing I did was to closely analyze the aspects of my research that I liked best and mark similarities throughout my favorite pieces.

In nearly all of my research photos, the key light source was the sun. The sun is an intense source of light and heat and these were two very important aspects of my design (image 11). I needed the stage to feel like a sweltering land to the audience, even though they would be sitting in an air-conditioned theater. I again went to my research, and tried to analyze why some photos looked hot and others cool. I found a major factor in this analysis to be color, but I didn’t want warm and cool tones to be the only indication of the temperature. On further analysis, I found that there were several factors that helped contribute to a feeling of heat in a photograph. An image of sunset, while beautiful, doesn’t feel as warm as an image that is taken on a bright, sunny day at noon. Some of this has to do with the angle of the sun and its association with the time of day. Some of it is the intensity of the light, and some of it is the amount of contrast between the shadows and the highlights in the image. These became the qualities that I decided to focus on.
Angle:

Angle was the aspect that I emphasized in my initial design. I noticed that the majority of my research had only one true light source—the sun. This meant that the angle of the light in these photographs is coming from a single and definite direction. I loved the sculpted look that this gave to the mountainous landscapes, the people, and other subjects of my research. Another thing I noticed about the angle of the light was that my favorite images had the light coming from an atypical direction (image 12). It wasn’t the standard front wash which has a tendency to flatten everything out, and it wasn’t a real side wash which can have a very dark quality to it; but something in between the two—a high side. This light direction helped to enhance the natural contours of the landscape, making a very interesting picture and I knew that it would do the same to the actors on stage. From there, I made the decision to strategically place my key light so that it came from the extreme ends of the first and second front house positions. I then added a gentle fill from the center to help with visibility. This would help recreate the long shadows I had seen in my research as well as add an evocative, sculptured look to the actors and scenic elements of the set.

Texture:

One design element that I seriously debated was texture. While most of my research images had textural qualities in them, they were not prevalent. Texture was, however, a large part of the design concept. The moving pieces were heavily coated and painted, and the entire hanging backdrop was made up of hanging pieces. In this instance, I decided to let my research influence me, but to have my major guide be the scenic elements. I spent a long time looking at the model that the scenic designer had put together and talking to him about his inspiration. I was told that the bark of the eucalyptus tree, which is indigenous to Australia, was a major source of the inspiration for the set and was strongly reflected in the pieced drop and the moveable scenic elements (image 14). I decided to do my own research on the eucalyptus tree and use that as my own guide toward the choice of a gobo texture that would help to enhance the abstract qualities of the set. I also believed that I could use that gobo pattern to my advantage to help create a subtle sense of isolation without narrowing the actors’ playing space too tightly or breaking the illusion of the vast space that the director wanted. While looking at gobos, I came across Rosco Gobo 79100, “Close-up Bark” early on in my search and I knew that it was what I wanted (image 15). I kept searching for other gobos, but nothing else seemed to fit so flawlessly into what the designer had created or with what I found in my own research. The texture would help to enhance the abstract nature of the scenic elements and help me to create some isolation as needed, but would still allow enough light through the pattern so that the isolation was not too extreme.
Intensity and Contrast:

The intensity of the light became very important in creating the heat of Australia on stage. I had a little trouble pinning down exactly what it was about intensity that made it feel so harsh and hot in the photographs. The pictures were very bright, but when using only bright light sources, I still felt that something was missing. In this respect, I found my research of England to be particularly helpful (image 16). While analyzing those photos, I found the quality of the light to be severely filtered and reflected through the atmosphere around the British landscape. This makes even the light of high noon look very soft and the entire image appears to have a sort of glow. I also noticed that the shadows in these photos were more grey toned than true black, and their edges were not crisp, but had a feathered taper to them. I then took one of my analyzed photos and put it right next to a photo of Australia and began to compare and contrast the two against each other. What had confused me before was that even though both geographic locations used the sun as their light source, the two areas had very different qualities of light. I kept thinking of the light as the change between the two places, when really it was the air quality. The atmosphere in England has so much water in it that it affects the way light is seen, whereas Australia is a desert and has a humidity level that is much lower which gives it a much more harsh, direct quality. The light is not refracted through the atmosphere, but bounces off surfaces back towards the sky and fills the atmosphere with light. The contrast in these photos of the desert was generally much higher than that of their London counterparts and created strong, bright highlights and deep, crisp shadows.

The critical analysis from my research helped guide my overall design. I avoided working with any sort of diffusion in my lights. I wanted the light to look slightly harsh and create a visually apparent high contrast between the highlights and shadows, with no feathering or tapering into gray tones.
Once I had identified the subtler artistic qualities that I wanted to design, I began to focus on the issue of color. The images of Australia gave me an accurate representation of the qualities of light in the regional area, and the Ansel Adams photos helped to fill in the artistic gaps in the landscape snapshots. I knew, too, from my Ansel Adams research that I wanted to keep my color palette away from truly saturate colors so that the qualities of the light, such as intensity, angle, high contrast, and shadow would be the focus. But since Ansel Adams worked exclusively in black and white photography, I felt I was still floundering as to what colors I should use. Several of my research images of Australia had extremely saturate color. Rust-red dirt, vividly blue skies, and gray tree trunks were the real focus in the research photographs. However, in several of the production’s design meetings, the scenic and costume designers both mentioned using a “sun-bleached” color palette (image 18). In order to best serve the script and their vision, I felt that I needed to choose a palette that reflected the same “sun-bleached” qualities in the lighting.

Ansel Adams’ lack of color photos eliminated him as a source of inspiration at this point, so I went into Photoshop and began playing around with filters. I took one of my favorite photos that was very color-heavy, and began playing with the saturation. As I was doing this, I remembered a process that I sometimes use in my own photography for creating a vintage or faded look. I overlay an exact copy of the original colored photograph with another layer. The new layer uses a slightly warm black and white hue, something close to a sepia print that lends the final product an antiqued quality. The result was evocative and felt hot, uncomfortable, and allowed the focus of the image to be divided between several artistic qualities (images 19.1- 19.3). It wasn’t all about the color anymore. I also felt that the final product completely coincided with the director and the rest of the design team.
Once the decision on a color palette was made, I began the process of choosing individual colors. Using the generated color palette as a guide, I began searching for matching hues in my gel swatches. I wanted to work exclusively with the Roscolux brand if I could, simply because the university already had a large stock collection of Rosco gel filters.
R04, Med. B. Amber:

I began my gel choices by picking colors to fill my key light. I was able to find a beautiful warm tone amber to fill in the slot for my warm key light. I decided upon R04, a medium amber with a large amount of pink in it, mixing with the traditional yellow-gold amber hues. It had a 66% transmission rate, so it let a good deal of light through the filter and wouldn’t burn out over the rehearsal period. I was particularly excited about this tone because I felt that it would not only look nice against the skin tones of the actors and the costumes, but it had just enough red in its tone without being overly saturate in color to help add to the feeling of temperature that was a major objective of mine.

R66, Cool Blue:

For the cool tone I debated between several blue hues. I wanted to make sure that the temperature of the desert night was being communicated as well as the heat during the day. I decided to look
for blue gels that had a slightly green undertone to them rather than a red or purple. I wanted to make sure that the cool not only felt cold, but that it had an icy look to it. I found R66, which had a transmission rate of 67% so I knew the saturation of the light would be similar to that of my warm R04, but simply opposite in color. The tone had a slightly green tint to it that would help cut out the warms of the set for the night scenes, without changing hue so completely that the set became a new color.

R99, Chocolate:

As soon as I saw my finished color palette, the choice to use R99 Chocolate was a forgone conclusion. The warm sepia tone seemed to fit in flawlessly with the entire design. The chocolate filter, with a 35% transmission rate, has a tendency to reduce the intensity of the vivid color on stage, taking everything a hue closer to a beige range. I felt that this choice would help enhance the “sun-bleached” color palette that the entire design team had collaborated on. Not wanting the intensity of color to be stronger than that of the key light, I used this gel in the front wash as a means of cutting out some of the extreme shadows created by my choice of angle.

R98, Med. Grey:

The medium grey gel, R98, has very similar characteristics to the Chocolate. R98 has a 25% transmission rating, and also balances out intense colors on stage. It is, essentially, the cool tone opposite of the Chocolate R99, but both are still neutral tones. I used this gel in several capacities in my lighting plot. The first place that I added this gel was in the textured gobo I used on stage. I wanted the gobo to fit into both day and night scenes, so picking a neutral tone was important in order to accomplish this.

R84, Zephyr Blue:

My down light washes were made up of three colors, the first being R84 Zephyr Blue. This gel has only a 13% transmission rate and is the most saturate color in my entire palette. For my cool down wash, I was looking for a color that would be a good contrast for the pale, cool blue, R66, that I used in my key light. I needed something that would add the depth of night into my color palette without being overly saturate and dark, but without being a true perky blue tone that would feel out of place in this dramatic script. I came across Zephyr Blue while reading reviews on the Rosco colors. Zephyr Blue seemed
to be exactly what I was looking for. This was a color I had never worked with before. I was a little hesitant to use it in my design, but was very happy with the outcome. R84 added a depth and coolness to the shadows on stage and was the perfect contrast to the key light, R66. It also had a bit of the same icy feeling as the Cool Blue gel. The Zephyr Blue had a grey undertone to it as well, and added enough saturation to the stage to help establish time of day without being so glaringly bright blue that the color would be out of place.

R318, Mayan Sun:

R38, Mayan Sun was also a color that I had also not used before, but while the Zephyr Blue turned out to be the perfect shade, Mayan Sun was a bit different than I had anticipated. I needed a color for my warm down wash as well as a color to use as an accent to the warm key light, R04. I was looking for something that was slightly more saturate, but in the same color range as the Medium B. Amber. I wanted a mix of red undertones and beautiful golden ambers. R38 seemed to be a good choice. The swatch color gave me a little taste of the overall look, but I found this swatch, more than any gel choice I had previously made, to be deceiving. The gel had too much yellow in it to accomplish what I had really set out to do, and so combined with its red undertones and the amber shift of the lamp in the lighting instrument, the color came out a vivid orange, rather than rose-gold as I had hoped.
Drafting:

Drafting the light plot for this production was probably the most satisfying drafting experience for me thus far, simply because I had such a clear idea of what I wanted to do and I knew how I wanted to accomplish it. One thing that became quite obvious early on in my drafting stage was that a standard Stanley McCandless plot just would not accomplish what I wanted to do. I needed something unique. My first step was to recreate the extreme high side angle that I loved from my research. I divided my stage into focus areas, so that I could decide how many lights I would need to accomplish my objective. I then took sixteen Source Four lights, all with 26° barrels, and placed them at the extreme ends of the 1st and 2nd front of house positions with eight on each side, split four and four between both light positions. I then colored each of these lights with either a non-saturate warm (R04) or a cool (R66) tone; four warms and four cools, two of each color shooting from each front of house position. These lights became my key light or the lighting instruments that I would program at the highest intensity so that the light coming from them would be the brightest (image 22).

Once I had decided on the position and angle of my key light, I began working on my fill. Fill was needed to help reduce the extreme shadows on the actors’ faces. Even though I wanted to create a deeper sculpted look, I also knew that the actors had to be able to be clearly seen or the quiet acting style of the play would become lost. For this, I added a slightly warm neutral tone (R99) using eleven Lexi Zoom instruments
hung on the second front of house position. They were hung so that they hit their focus area from straight on, with one light per area. The idea was to program them at a low intensity so that they only just helped fill in some of the holes without taking over the design. I also added my gobo texture coming from the same front angle. I used the Lexi Zoom instruments here and hung them all on the 1st front of house position. Seven instruments were used, and focused to the seven areas that divided the thrust section of the stage. I specifically chose to shoot the texture from a front angle because I didn’t want any sort of distortion effecting the gobos or the way they played off the actors and set (image 23).

After finishing my front of house position, I added down light to my plot. I used a mixture of 24 and 16 inch Fernel units to create a three color wash. The size difference was because our school did not have the inventory to create a three color wash using the same sized instruments. Because of this, the warm gels (R318) were placed in the 16 inch Fernels, and the neutral (R98) and cools (R84) were used in the 24 inch units. The fact that we did not have the inventory to use 24 inch Fernels for everything actually turned out to be a blessing in disguise as the choice of gel for the warm wash was a little potent even in the 16 inch. I never used the warm wash at its full intensity when programming the show simply because it became overpowering when combined with the paint treatment that was applied to the stage floor (image 24).

Once down-light had been decided on, I went on to create the light position that would help add the last bit of dimensional detail to the actors. I wanted to be sure that the intensity I wanted to achieve in my key light, which was coming from the ends of the fronts of house positions, would be possible. I decided to enhance it by using a cabled pipe dropped from the 1st front of house position; one pipe hanging from stage left and one from stage
right. These became hanging boom lighting positions. I added six Source Four instruments to each boom and turned the lights into a warm (R318) or neutral (R98) tone, both meant to enhance the day and night scenes (image 25).

I added a two-tone back light wash. I wanted to add back lighting for a few different reasons. First, backlighting helps to provide separation between the subject and its background. It lends a more three-dimensional appearance to actors and set elements, while the front lighting alone gives a more two-dimensional look. Backlight can also help create a chiaroscuro effect, adding depth between the actor and the background and giving the actor an almost haloed appearance. I believed that the added separation between actor and stage, along with moments of chiaroscuro, would help add to the overall effect of the design. To accomplish this, I hung five sets of Altman 6x12 instruments from the 1st upstage electric, giving each set a warm neutral (R99) and a cool neutral (R98) gel (image 26).
Light Renderings:

I use light renderings not only to help with visual communication with the director, but also to work through lighting ideas and looks that I might want to use on stage before the hang and focus stages of the design. I use Adobe Photoshop to create my renderings, using a photo of the set, usually in its model form, as a base. I then use several tools and steps to paint in the light and shadow. The end result is a computer-generated image that looks like a final production photograph of that lighting moment.

For this rendering process, I started with a photograph of the model that had been built by Rufus the scenic designer (image 29). Unfortunately, at the time I needed to begin my process of rendering, the model was still incomplete. This presented me with challenges in my renderings and added hours of preliminary work to the process. The three biggest changes that I came up against when working to finish the model in Photoshop were the floor, the scrim, and the backdrop.

The floor presented a challenge because the designer had not yet glued his painted rendering into the model, and of course, the card stock had warped and wrinkled as paper tends to do when moisture is introduced to its surface. I tried pinning the floor down in several places, and while this helped, it didn’t eliminate the wave of the paper entirely. My next idea was to simply reapply the floor in its entirety in Photoshop.

Since the floor had never been glued down into the model this was fairly easy to accomplish- I simply unpinned it, and scanned the entire image into the computer (image 30). I was then able to take this into my Photoshop rendering file, change the perspective, and lay in the floor digitally.
The problems presented by the scrim were a little more difficult to solve. The designer had fabric acting as a scrim in his model, but it would not read as scrim to the camera. Instead, it became a solid black wall. My first thought was to place a light behind the fabric to help illuminate the weave and create the look that a scrim gives to a set. Sadly, this only worked in a limited capacity creating hot spots in the photo and then disappearing into a solid mass. I next tried scanning the piece of material into the computer, to try and catch the detail of the weave, but I encountered an unexpected problem (image 31). In order to separate the background of the scanner from the material, I had to zoom in to an extremely detailed view of individual pixels. I wasn’t seeing just black and white, though. The computer had detected the slight sheen to the fabric and the scanner light had reflected off of that sheen and created blues, greens, and purples along with dozens of greys. Trying to separate where the fabric ended and the background began became virtually impossible, and the end result was simply a mess.

I decided to try and make my own scrim texture in Photoshop. My first try at a digital scrim was to make a fine pixel grid (image 32). It wasn’t too difficult to accomplish, but the end result was so perfect that it looked a little out of place, and the overall effect was distracting when placed in the rendering. I began researching actual scrim fabric, checking on the dimensions of the weave, looking in detail at the thread, all while trying to find a large image of a scrim that I could transfer into my renderings. Most large scrim images that I was able to find were already lit, and trying to adapt these images for my own renderings would have been impractical. The only quality image of a scrim that I was able to find was of a retailers detail view, and was a close up shot measuring approximately 4”x 4” (image 33). With this image, I was able to stitch together several squares of the detailed scrim until I had a piece large enough to cover the stage in my own rendering.
The last major scenic element that I had to create for the rendering was the ground row. The final design for this scenic element had not yet been completely decided upon, and had not been completed in the model. I wanted to make sure that I was accurately portraying what would be on stage for the production, so I decided to digitally create a ground row for the renderings (image 34 & 35). I talked with Rufus about what he was working on in his design of the ground row and then created my interpretation of that for the rendering. The actual finished scenic product turned out a little differently than we had discussed, so my renderings did not turn out quite as accurate as I had hoped, but I believe the outcome was still better than if I had ignored the ground row altogether.

Once I had finished adding the missing scenic elements to the Photoshop file, I began to create the template for the light renderings. My first step was to create and save specific selections that would enable me to make the basic template that I built all of my renderings from. Creating a selection in Photoshop is basically the method of outlining a specific section of the photograph and saving the outline. Major selections saved for this show were the floor, scrim, ground row, the bark backdrop, the tower stands, the gobo texture as it would be projected on the floor, moving scenic elements such as the boat, leg and borders, and the proscenium.
After creating the basic selections that I needed to work from, I began creating individual lighting moments. One major aspect of the design I spent time exploring was the use of cyclorama lights. Rufus was heavily debating designing the set so that the entire show played against a backdrop of black curtains, cutting out all of my upstage light. I debated for the opposite saying, “Let me try building a few looks with the depth of a cyc, and if you still hate it, then with the scrim you have provided in the design, I can make the back wall disappear into black at any moment we choose.” He remained skeptical, so part of my rendering process was to create two or three copies of each lighting moment- one with the cyc open and lit, one with the scrim dark and the cyc unlit, and one played against black (images 37-39).

Being able to present a visual interpretation of what I was trying to communicate was incredibly helpful in obtaining the cyc lights that I wanted for this production. Both the scenic designer and the director agreed that the addition of a cyc in this production would only help increase the depth of the set, the emotional feeling, and the overall feeling of size that the entire design team was trying to achieve. The decision was made to have a cyc available for me to light, and then to close the mid-stage traveler for specific scenes, such as the governor’s mansion. However, once the scenic designer had seen the lighting on stage, he didn’t feel it was necessary to use the mid stage traveler at all. The lack of upstage light, along with the black scrim in his set design darkened the cyc enough that the mid stage traveler was cut from the production entirely.
The order I create my renderings varies greatly from show to show. Sometimes I start with the look I am most excited about, other times I begin with a moment in the play that will be the most challenging. For this show, I decided to begin with the look that would be repeated the most often in the show.

This is the rendering I made for the majority of the day scenes when the rehearsal scenes would take place and a great deal of dialogue was exchanged between characters. I knew that it was important to make sure that the actors could be seen without too much difficulty, but I still wanted to create a feeling of heat and sculpt the actors with highlight and shadow using the light plot I had designed. In this rendering, I tried to communicate a hot, bright day, with the sun beating down from a high angled direction. I also added the front chocolate fill so that the shadows across the faces of the actors would not make it difficult to see their expressions (light rendering 1).

As you can see there are actually two renderings here, the larger is the revised image. The blue cyc was creating a cooler feel than I wanted, so while the orange sky is unrealistic for the time of day, I found that it helped communicate the heat of the land much more effectively (light rendering 1.1).
The next rendering I worked on was the opening scene of the play. This was challenging for me because it was such an important lighting look. The director had told me from our first design meeting that this moment in the play had to be powerful, and the lighting needed to be a large part of that. I was to enhance the brutality of the whipping that opens the play without adding any sort of graphic element; to separate the convicts who were supposed to be in the hull of the ship from the officers and action happening on deck, and enhance the scenic elements given to me to communicate that this was taking place in a ship, on the water, when almost every other scene in the show takes place on land.

I was a little intimidated. I knew that if I presented an image that was not accurate to what could be achieved in the final product, I would disappoint the director and this moment in the script would fall flat.

Keeping my research in mind and the design choices that I had made based on that research, I began creating a specific lighting look. I used specific isolation to create the small space of the hull, and the ground row and cyc to create the distances between that space and the deck above. The color of the cyc also changed in hue from my first attempt to the final rendering. I originally used a putrid yellow to create an uneasy feeling for the audience, but I found the look to be far too jarring and the orange cyc against the blue floor helped create added distance between hull and sky (light renderings 2 & 2.1).
The only other scene that takes place on the water was a moment between two characters, Harry and Duckling, while they are rowing a small boat to an island adjacent to the mainland. The actors never leave the boat during the scene making it relatively intimate.

To keep that feeling of wide spaces that is prevalent throughout the show, I decided to use a limited amount of isolation in this rendering, even though the actors would never move from their tight space. I decided to try and create a feeling of water surrounding the boat that would help create a subtle isolation effect, but still give the audience the feeling of the large space. I also decided to bring the gobo texture quite prominently into this rendering look. Despite the fact that the texture was actually of tree bark, I thought that it would help communicate a sense of rippling water on stage (light rendering 3).

Once I had designed this look in the form of a rendering, I went back to the script and reread the moments where Harry Brewer is on stage. Ninety percent of them took place at night, and half of those were scenes with Duckling and held the same intimate nature that the boat scene did. I began rendering a different look for these other scenes, but it was not working. I felt that there needed to be a consistency between these scenes so I decided to use the same basic look for all of them; changing the areas of subtle isolation to fit the blocking, but keeping the major design elements of the pieces similar to each other.
Making a rendering of the tent scene was not originally part of my plan, but it turned out to be a necessity. The scenic designer was struggling a little with the design of the tent. His original idea had been cut, and a revision to the design had been slow in surfacing. The idea had been suggested that the tent be portrayed with light, a shutter cut into a triangle to symbolise a tent. This probably would have worked, but I felt that it was so different from any other element in my design that it would compromise its overall quality. I began discussions with the scenic designer and, while brainstorming different options, I suggested a simple muslin sheet that could be dropped from the grid and then be pulled out from the bottom to create an interior. The scenic designer liked the idea and asked me to render it so we had something to show the director.

This is a revised rendering for this lighting moment which changes a gobo pattern and the cyc color. Early in the rendering process of this piece, I added a moon gobo that would shoot against the cyc. This gobo was already part of the stock collection owned by the university. Once it became time for the hang process, I found that the gobo had been rented out for another production, and so a few minor changes had to be made (light rendering 4 & 4.1).
Once I had completed the renderings for the light looks that would repeat the most often, as well as the moment that would be the most challenging, I began creating renderings for specific lighting looks throughout the production. I made a total of eight finished rendering looks, with several revisions along the way (light rendering 5-8).
Light rendering 7: The Aborigine look

Light rendering 8: Measuring the noose
Production Process

Budget:

I was given a $300 budget for this show. I knew that a third of this would be eaten very quickly by the purchase of the gobos that I needed. While I would only order one pattern, I needed a quantity of seven to cover the entire thrust section of the stage floor. I also needed to order almost all of the gel that I would be using. While our school does have a good assorted stock of gel, many of the specific colors I was using were not in our files. The gels that were in our stock either had an insufficient amount filed away or, as in one instance, the gel was missing from its file all together. The total between the gobos and the gel came out to nearly $284 including taxes, and just under budget.

Hang:

Once I had finished the visual conceptualization, the first step in the production process was to hang the lighting instruments. This was done according to the plot designed for the show. One new thing that I tried for this production was the use of cutouts, or miniature light plots (images 40-42).

I divided the light crew, a group of three untrained undergraduates, my master electrician, one graduate student, and myself into three groups. Each group had one member who had a great deal of experience and one member who had never changed a lamp before. Each team was given a mini plot on cardboard, and the two members of that team were responsible for hanging and circulating that small section of the overall plot. By splitting the whole crew into smaller units, we were able to cover more area quickly, and by having one skilled student leading an inexperienced one, the most efficient groups were created.
Focus:

After the lighting practicum crew had hung and circuited all of the lighting instruments, the focus section of the production process began. My master electrician, Braden Howard, was not available to help with this step, so there was really no way of dividing the undergraduate students into teams since I had to be on stage for the focus. Instead, I sent the three undergraduate students up into the front of house positions to focus lights, with the master electrician to help supervise each of them as they went. I was then able to stand on stage and direct the focus for three lights at a time. Even though the lack of experience made this a slow point in the process, the light crew learned very quickly and the entire focus was accomplished in a matter of hours.

Programming:

The programming portion of the design offered a new set of challenges to me. Some of these came about with the introduction of an assistant lighting designer to the process. Up until this point, my assigned assistant lighting designer, Jon Harlow, had been unable to help with the production because of work conflicts, but once the majority of the design work moved to the late evenings, my assistant was able to integrate himself into the design.

I decided to give Jon a list of tasks to accomplish. These included creating the lighting patch, or assigning what light goes to what number in the computer, helping to program several of the light cues for the show, making sure all of the lights were in good repair and working every night, and assisting with the overall quality of the design. In the first step of creating the patch, we encountered our first challenge. A patch is the process of programming the lighting console so that when you tell it to bring up circuit one, the appropriately assigned light turns on. While Jon understood my design vision and was effective in helping me accomplish it, the mechanics of getting to the final product were troublesome to us due to communication mishaps and differences in conceptualization. The patch that he created was incredibly difficult for me to follow, and had a few errors and holes in it; mistakes such as certain lights not responding when told to because they had been patched to the wrong place, and more than one light coming up when another number’s intensity was raised. These mistakes were eventually corrected, but it did take time on the part of my master electrician and myself to troubleshoot the errors and fix them.
The other complication presented by the patch was that it was not set up in a way that flowed and was easy to understand. It took a lot of memorization on my part to remember how the lights were organized, and I was still slower at programming the board than I would have liked to be. For the sake of time, whenever my assistant was available to help me, I would have him run the light board while I dictated what I would like for each individual lighting look. I had never designed a show in which I didn’t run my own board the majority of the time, and this became a good learning experience for me in communication.

The next major challenge I encountered also came in the programming stage of the design, with the fact that I had to leave the design for a week while I attended the American College Theater Festival in Los Angeles, California. I left detailed instructions with my assistant and my master electrician of what I would like accomplished while I was away, and then I simply had to step back and let them have the reins. I was a little amazed by how difficult it was for me to let go of my design so entirely and pass it off to others, not knowing exactly what I would find when I came back. My fears were ungrounded though, because when I came back a week later, the tireless work of my assistant and master electrician had the lighting design ahead of schedule and practically ready to open.

The production went into technical rehearsals the day I came back from California. They were executed with only minor changes to the lighting; a focus issue here and there, one more light to hang to help flush out a certain area. This section of the design implementation was fairly quiet, and I believe that a good deal of planning and a clear vision helped to make that possible.
Production Photos:

Image 43: Production photo of Our Country's Good, the voyage out
Image 44: Production photo of *Our Country’s Good*, the voyage out

Image 45: Production photo of *Our Country’s Good*, the second rehearsal
Image 46: Production photo of *Our Country’s Good*, Ralph Clark tires to kiss his dear wife’s picture

Image 47: Production photo of *Our Country’s Good*, the authorities discuss the merits of the theater
Image 48: Production photo of *Our Country’s Good*, Harry Brewer sees the dead
Image 49: Production photo of *Our Country’s Good*, Harry Brewer sees the dead
Image 50: Production photo of *Our Country’s Good*, the science of hanging
Image 51: Production photo of *Our Country’s Good*, the science of hanging
Image 52: Production photo of *Our Country’s Good*, visiting hours
Image 53: Production photo of *Our Country's Good*, the second rehearsal.
Evaluation:

Sitting here trying to determine if my design was successful or not, I wonder what it is that makes a design a success. Do I feel that I achieved all that I set out to do? As a whole, yes; I was very proud of the outcome of this production. I had a very detailed vision of what I wanted to bring to the stage, and I truly believe that I accomplished that task.

The real question is did all of the hard work put in by all of the designers communicate itself to the audience? They are the true judges of the theater, and the entire success or failure of a production rests with them. I don’t necessarily mean financial success, although this is a factor that all theaters must consider when mounting a show, but did my design help to enhance and support the overall production in the audience’s eyes?

I have heard it said that a really good lighting design is one that the general audience member doesn’t notice. It doesn’t draw attention to itself by being overly flashy or weaken the production with a lack of effort, but it sits in harmony with all of the aspects of the stage. While there are some shows that require spectacle to accomplish this harmony, Our Country’s Good was not that sort of a production.

I honestly believe that a lot of the work that was put into my design went unnoticed by the audience. I doubt they saw the lighting and instantly made the connection to Ansel Adams. I hope that they could feel the sense of temperature without saying, “Oh, well that’s the lighting doing that.” The audience didn’t spend time analyzing the lighting, which is as it should be. Most audience members probably had no clue that the lights were designed to do anything other than light the stage. However, I do believe that the sense of feeling I tried to design into the lights only helped to complement the work of the director, the actors, my fellow designers, and the script, evoking an emotional reaction from the audience that communicated itself into a beautiful piece of theater.
Appendix C
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Light Rendering, Harry and Duckling go rowing. Personal photograph by author. 2010.

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Light rendering, measuring the noose. Personal photograph by author. 2011.
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Light rendering, the governor’s mansion. Personal photograph by author. 2010.

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