Silver lining

Mary Boyer

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Silver Lining
By Mary Boyer

Thesis Report

Submitted in partial fulfillment of the requirements for the degree of Master of Fine Arts in Imaging Arts/Computer Animation

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Introduction

As an assignment in a scriptwriting class I took at RIT, we were to pick a house and draw a map of it. It could be any house that we spend time in or that meant a lot to us. We were to stand up in front of the class with an overhead projector and give a tour of that house. When it was my turn, I found that each object in each room of the house I’d chosen caused so many memories to flood back to me. I was also amazed at how vivid my memory was of a house that I had never even lived in. My instructor commented that I really seemed to light up when I talked about the house, that I must have had some special memories there.

When it came time to pick a story for my MFA thesis, tons of ideas came through my head. Most of them were visual, things I would love to build and texture in 3d, sets that I could already visualize. But none of them had a story, none that I could feel passionate about. Then I realized, I had already picked my subjects in my scriptwriting class.

The house I had drawn was the childhood home of my grandmother and her siblings. Two of her sisters had never married and decided to live together at the house their father had built for the rest of their lives. Although only two of them actually lived there, as a child it seemed as if they all lived there, all four sisters.

I had my four main characters. As a child, I was blessed with some amazing personalities surrounding me in my life. These four old ladies were each born on holidays that seem ironic to me because of their personalities. Their colorful quirks and habits seemed funny when I was a child, but I cherish them now as an adult. I knew that I wanted to do a film that meant something to me, a film that celebrated these ladies and their
impact on my life.

**Pre-Production**

**Story Development**

Coming up with the right story for my characters was a struggle. I wanted the film to be interesting, but really didn’t want to take the focus off these fascinating characters and onto a complex story line. I thought about making the film into a mock documentary because I really was more interested in the character development and look of the film than a story. In the end, a story was inevitable even to make a documentary flow.

I tried countless story ideas and my story continued to evolve through production. I thought it would be best to base the film off of real life through the perspective of a child. I thought about what these ladies meant to me and their impact on my life. I realized that because of my young age when I knew them, their deaths had almost as much of an impact on my life as their presence did.

As a child I had a great connection with all of the older members of my family. Instead of riding my bike to a friend’s house, I would ride it to my great aunts’ house or grandparents’ house. It was devastating to me when they all passed away, one after another starting when I turned eleven. I wanted to do a film that captured the confusion and abandonment of a child via a child’s perspective on death. The first part of the film builds up each character’s personality and her interaction with a young girl (me). With the second half of the film the characters would disappear one at a time. In keeping with the child’s perspective, it made sense to represent the characters’ deaths with imaginative
disappearances. They fell through couch cushions, got sucked into a tree, or reclined out a window. Each death is reinforced by a symbolic walk through a grass field wearing black, each time one less sister.

Since the film is based on reality, I had to change the story for the last sister to disappear. One of my great aunts is still alive, just abandoned my family after the deaths of the other three sisters. As the story went, with the abandonment of this last sister also came a loss of the house, the photos, and the furniture for my family.

I discussed with Skip Battaglia, my thesis advisor, at length the importance that family relics and furniture passed down from generation to generation played on our lives. We discussed how something like an ugly, old green lamp could not simply get thrown away if it came from the estate of a relative. We remember seeing it in their homes, when they were still alive. Somehow, sitting that old lamp on a table in your house makes you feel like you’re keeping family with you. Over the years your house becomes a collection of decorations and pieces of furniture of people who had meant something to you in their lives. I chose to show the last sister taking with her all of those belongings, sucking them into a vacuum. All the little girl is able to save is one ugly green lamp, which she curls her body around like a fire. She is left in a black void with the only light coming from the dimly lit lamp she’s curled around.

As the ending and moral to the story, the child pulls out a photo album filled with images of her lost relatives. As she looks through the photos and remembers her memories the house, the furniture, and the sisters all come back to life around her. I wanted to symbolize the idea that we can keep people alive in our memories, that to live in hearts that
Character Design

Character design was somewhat easy for me because I had a real person that I based each character on. I dressed each in clothing that I had seen them in or that best showed their personalities. I exaggerated their facial features or the accessories they wore.

I began the character design by doing individual character sketches. I wrote down lists of everything I could remember about each sister from her physical appearance, the way she dressed, her different mannerisms. I felt that if I designed the characters in a way that was familiar to me, they also might feel familiar to the audience as they watched the film.

Environment Design

Designing the sets and house that the film was to take place in was a little more difficult. Again, I based this off of a house in real life. The problem with the house was that I didn’t have many photographs. The house still stands today, but has been turned into an apartment building rented to more people than legally allowed. I didn’t think it would look anything like it used to. Actually, my family and I try to avoid the street the house is on altogether because we find it so painful. So I spend many hours on the phone with relatives talking, trying to remember every last inch of that house.

Since the film is through a child’s perspective, I decided to exaggerate everything. As a child, the tree they had in the corner of the room looked to me like a huge tree you might
find outside. It seemed like the ceilings stretched on forever, while the furniture on the floor seemed bunched right on top of each other. Less important objects are smaller and fall into the backgrounds. In actuality, I don’t think the colors were quite as vivid as they are in my film, but they vivid in my memory.

The color green stands strongest in my memory. My grandmother’s favorite color was green. Her house was decorated in lime and olive green. I think the color green was common throughout most homes in that time period. My favorite colors are lime, olive, and sea-foam green, because those colors remind me of a time and of people that meant a lot to me. On the last day I was going over the edit of my film with Skip Battaglia, he said that there was something that wasn’t flowing about the film. We rearranged a few shots, which helped, but there was still something wrong. I realized that one shot in the sequence he was talking about didn’t have any green in it. I had the color green in some prominent way featured in every single shot. I realized then that the background had not rendered properly for one shot so there was no green in it. Once I fixed the shot, the continuity of the film improved.

Why go through so much trouble to make my characters and set so closely match their inspiration? I had a few reasons. For selfish reasons, I wanted everything to look as close to my memories as possible because I cherish them. But more importantly, for it to be believable. The best compliment I have gotten about this film is “It reminds me of my family, of their house”. I couldn’t have come up with the house and quirks of the character design that are so universally familiar to us all just based on my imagination. A problem in a lot of computer graphics today is that characters all look the same from film to film and studio to studio. These sisters were amazing to me in my childhood because they acted,
dressed, and looked so differently from one another even though they were all sisters. Their home was filled with such an odd assortment of objects and patterns that I couldn’t have imagined. Maybe the strongest aspect of my film is this familiarity of the world I created.

Production

Modeling

When you’re modeling five characters plus endless props, it takes a long time, so long that you can’t help but sharpen your skills as you go. I was also working a full time job at the time where I found myself also modeling characters. As I worked, I began to truly understand what everyone has been saying to me for years about modeling for animation. Many of the problems that I always encounter in rigging started to be answered during the modeling process.

I began the modeling process by creating clay models. I knew that I wanted my characters to be organic and asymmetric. Most modelers would say that you should model half a character, mirror that to the other side, and then tweak the character to add asymmetry. That technique never gave me the results I wanted, so I decided that I needed to model the entire character. This made clay models necessary. In order for each of these ladies to truly have unique character, I needed each body type to be different. I felt that every attribute of each lady said something to me about character. One of the ladies had a plump matronly figure and her body tended to slump to one side, always the same side. I used clay to resolve this design and then translated it into the modeling. Photographs of the
models were then placed in Maya as references for my modeling. I used the NURBS patches method to trace over the models and create the basic shape. Then I converted the patches into polygons and created a polygon proxy to further refine the characters.

One of my biggest obstacles in building my characters was the eyes of one of my main characters, Lizzie. I really wanted for her to have exaggerated coke bottle glasses, but I just couldn’t come up with a shader that produced the desired effect I wanted. I read an article online about the old man in the Pixar short “Geri’s Game”. This old man had the exact magnified look in his glasses that I wanted. As it turns out, the article said that they just used a camera trick to get the look of the magnification and did it in post production. I decided that the only way I was going to be able to do this was using a trick too. I had been able to reach the desired look I wanted by just applying a render of her eyeballs in a larger scale as a texture on her glasses. The problem with this was that I wanted her eyes to blink, and move from side to side, and animate. I re-modeled her glasses so they covered her face from the sides too, almost looking like goggles. Then I scaled the geometry of her actual eye socket inside of the glasses to be bigger. It gave me the desired look and at the same time allowed me to still use blendshapes for her eyes, allowing me have her blink and look from side to side.

Texturing

Part of the desire for making this film was my love of texturing. I knew I could make the sets for this film in the style of my favorite time period - all of them. The most common aspect of all older relatives’ homes is that their decorations span a long time period. They
may have some updated pieces and patterns from the ‘80s or even ‘90s. They have their cherished pieces from the ‘30s or ‘40s. And then they have their wild patterns from the ‘60s and ‘70s. All of these patterns and colors and styles of furniture combine to form one decorated room. I always pick a time period when I begin to design a film. It influences my color palette and pattern choices as well as my character design and overall look of a film. My film is about recreating time through memories so it feels fitting to me that the look of the film covers so many time periods.

All of my films share one aesthetic. They have a painterly look to them. It’s my style. This film was no different. It was easy to build the painterly look with patterns and textures everywhere. I’ve been collecting scarves for years; I call it my ugly scarf collection. I don’t really know why I collect them except that I just really love dated, funky patterns. Most of them are from estates of relatives. When the families go through the deceased’s belongings and ask if I want anything, I always ask for their scarves. Today’s scarves don’t interest me much, but the scarves of the ‘40s, ‘50s, ‘70s have such great patterns. I took my entire ugly scarf collection and scanned them into my computer. I used these for everything from the patterns on chairs and clothing to wallpaper and rugs. The texture on the rug in the living was my grandmother’s old birdcage cover (I washed it). I really hoped that the attention I put into these details, the amount of color in every shot, would make the audience feel like they were being shown a glimpse into another world. This world would be strangely familiar, but yet another world.
When you’re rigging five characters, it takes a long time, but I found that unlike modeling, my skills did not grow stronger as I worked. They just grew sloppy. I spent a week rigging my first character, making sure she moved in every possible way she could ever need. She had over twenty expressions she could make and she could talk for an hour. It was too bad that this character was always sitting in my film and none of my characters talked. With each character I rigged after her, I began to let things slide. If her arms deformed her chest too much when I moved them a certain way, I would just not move them that way.

My progressively sloppy rigging didn’t hurt me too much. Most of my characters really didn’t do much besides sit down. Lizzie stood, but didn’t walk around. The little girl was rigged better than most characters and was really the only character that had complex animation. I had wished to do more complex animation with Marie, the sister with the big red hat, but sadly she was the last one that I rigged. I did have problems with the little girl when it came to running. She did run cycles a few times during the film. I had a problem with her rig where once she moved a certain distance from her control, her head would spin around backwards. I tried fixing it for days, asked friends for advice, but nothing seemed to fix my problem. In the end I just wound up trying to do some compositing to paste two run cycles together. The result, however crude, at least got the point across as to what I was trying to accomplish.

I wish that I had been able to do further planning on my film before I had done the rigging. There were blendshapes for characters’ expressions that I created and didn’t use. If I had known exactly what blendshapes I would wind up using for each character, I could have used the time I saved to better rig and paint weights on the characters’ hands. None of my characters’ fingers moved beautifully. Some were better than others. A few of the characters’
finger geometries would flip out if they barely moved. I was lucky that most of the characters were old ladies who weren’t supposed to have a great range of motion in their fingers.

Ambition vs Reality

My film had five characters who were superrealistic, had paint effects hair, and glasses. Anyone who knows computer graphics would, and did, immediately tell me I had unrealistic ambition. I could have done a film with one character who wasn’t very detailed and had more time to concentrate on animation and developing my storyline. That would have taken all of the fun out of making this film for me. In 3d, we all have our preferences. We all go into a certain specialty once we finish school that we will work in the rest of our lives. For me, that is modeling, character design, texturing, and art direction. Through all of my films at RIT, I have been getting the same comment: picture perfect. That is that if you looked at one frame of my film, it would look perfect. Once the film is played and you see the animation, the film only manages to be satisfactory. Of course I wish that it could be possible for me to make everything perfect in my films, animation included. There are just too many realities working against that.

I had high hopes of really getting into the character development of this film. I really wanted the viewer to feel like they knew each of the sisters by the time that they all left us in the film so that the viewer identifies with the story so much more. As you can see in the character sketches located in the appendix, I had very detailed descriptions of each lady. I had countless little quirks that I wished to animate. I really wanted to play up the fact that
Marie acted a little bit crazy all the time and frustrated her sisters. Lizzie was to really never do anything except clean something that wasn’t dirty, over and over again. I wanted Mamie to come across as the mother hen of the group so her passing first among the sisters would have a sting. I wanted to show more of the each sister’s reaction to the other sisters’ deaths. I wanted my film to be ten minutes long instead of seven.

Changes & Sacrifices

Change is good in any film. In any artwork, the ability to make changes and let go will only make it stronger. In animation we also deal with sacrifices, which don’t always add to the film. Sacrifices do, however, allow us to complete the film. The production of this film spread over two years. I learned tons of new skills during those two years that I was able to put into the film. In the end, however, I had to make sacrifices to have any hope of screening the film. I threw out a few shots from my storyboard that didn’t contribute in a huge way to the overall story of the film. It was hard for me because they were shots that I loved that truly showed character development. The story could be told without them so they had to go. I had planned as to the character of each of the ladies, their quirks, and exactly what they would be doing in the film. I had planned at one time to have the film take place in six or seven rooms of the house rather than the three I finally used. I realize now that the film I wanted to do was probably more of a fifteen or twenty minute film that I needed a crew of people working on rather than something I could have finished by myself for my MFA thesis.

Rendering
Rendering was my biggest nightmare in getting this film completed. One of the ideas of my film that I was unwilling to let go of was the constant presence of the sisters. Before each death, I wanted the characters to all be present in every shot. We don’t see the characters move from room to room, but every time we enter into a new room they are all present. They’re sitting in the backgrounds involved in varieties of ambient motion, but they’re there. That represented the presence that these characters had in my life that maybe I took for granted as a child. They were just there, at every birthday party or Thanksgiving. They were always home if we ever wanted to go visit them.

There were five characters in almost every shot of my film. They were all complex characters with paint effects hair. The cameras didn’t move, but my computer at home was not even able to render a single frame without crashing. I had to go to the school computer labs. I had pretty much continuous use of the graduate lab, but that lab was made up of Macintosh G5s. The G5 was more than capable of rendering my last film because of it’s dual processors, but with this film again the computer would crash. The only computers that would render my frames successfully was the 3d lab that had Boxx computers. My renders still took from ten minutes to thirty minutes depending on the shot on these computers. My shots were all between two hundred and four hundreds frames. I tried breaking the individual shots up across a few computers. When I did this, I would always get an unexplained color shift. Even if I rendered on the same exact computer, but rendered half the shots in the morning and half the shots at night I would get an unexplained color shift. My shots were too long to be able to render them out during the set eight hour render time the lab was closed for at night. I also tried the render farm that was
set up to run across any available computers. The render farm was a lot quicker, but it resulted in dropped frames, inconsistencies, and errors. Once a file was put on the render farm, sometimes the render globals of the file even changed. I had great assistance from our computer help department, but in the end there just wasn’t time to fix all the problems. I was forced to split a lot of my shots into several layers. I had lots of experience doing this from the full time job I was working at the time. The paint effects hair just wound up giving me problems. The compiled images never looked as good as a render that I did without layers around the paint effects hair. I also had problems with inconsistencies because of my layering. By the end of the rendering process, I started getting desperate. I had never anticipated that rendering would take me over a month for this film; I had rendered past films in little more than a week. My scenes were just filled with so much information. I had taken every shortcut I knew to take with them, but sometimes I had to have a tiff file that stretched across a whole wall. Many of my renders crashed halfway through and most of my shots had to be rendered in three or more layers. Organization was very difficult during this process. I wound up rendering some layers twice and forgetting to render some at all. In the end, I did wind up getting the entire film rendered out, but I was left with some unavoidable flickering and jumping.

**Editing**

The editing of my film took place on the last two days before I screened, but I had actually started it long before. Because of the time constraints of doing this thesis by myself in 3d, I really had to make my editing choices before I started animation and while I was
animating. When I finished animating a shot, I would save the playblast as a placeholder. I took the files into FinalCut Pro for editing and began putting the shots together and laying out the music as soon as they were animated. I didn’t have time for an unnecessary rendering. The only shots that I did throw out in the end were shots that really didn’t turn out very well. I also took some frames off of a few shots here and there that didn’t render perfectly. If I had more time, the film would have benefited from a tighter edit. It would have also benefited from some shots being redone once I saw how they fit into the edit. I wound up having a few shots that seemed too short that I would have loved to re-render. I made a few last minute changes to the order of the shots that I think really made the film make more sense at the advice of my thesis advisor. Once all of my renders were finished, I was able to just drop them in where the placeholders were and render out the final cut of the film.

**Sound**

I started thinking about sound while I was in pre-production of the film. I was listening to some music one day in the car and found the perfect song for my film. It was by a band called Pink Martini that was located in Portland, Oregon. The only thing I had to do was try and get rights to use it. The band was just starting out so I figured I had a chance at getting through to someone and possibly getting the rights for free. They are more like a large orchestra group than they are a band, and the recordings on their cd seem to all include different performers. I didn’t know if this would give me problems, if I needed to get rights from so many people. I finally heard from someone at Pink Martini that was very cooperative. The group didn’t sell rights, but were willing to give them for free if they
approved of it's usage.

I also found another song that I loved for the introduction of the film. It was a recording of “Look For the Silver Lining” by Chet Baker. I knew that I wouldn’t get this song for free. I started contacting people and found that I could get a student price for the song rights and would only be able to use it in festivals. This was great for me. The rights would only cover one year though, so I waited until after screenings before I would pay the hundred and fifty dollars and start the one year contract. I didn’t want to pay for time that I was still working on the film and wouldn’t be submitting it to any festivals.

My other sound effects I bought from a website called audiosparx.com. I was able to find exactly the right church bell sound that I wanted for the funeral procession and was also able to find a great vacuum sound effect. Overall, my film didn’t really have a lot of diversity in sound effects. I relied primarily on my music choices. I really feel like the music did assist the film. I don’t think the film would have made sense if it wasn’t for the music choices. It was as if the music was even a character in the film.

Screenings

I screened my film on September 15, 2006 as part of a special screenings for graduate thesis films. There had been eight of us that wished to screen out of the normal cycle so we would have time to finish our papers before the end of the quarter. I think the odd screening date really helped our turnout. For a screening of just eight films, the Carlson Auditorium was packed.

The film played well, but all I could think about while it screened was how loud the
sound seemed. It hadn’t seemed so loud in my headphones while I edited it, on the monitor when I transferred it, or even on my home television. I worried that the audience wouldn’t be able to concentrate on my film because the sound was so loud.

The overall response of the film after it was screened was good. I only received a few negative comments, but those were more constructive than anything. Someone thought the green had too much punch, that the colors were out of gamut. I received lots of comments about how I should really fix a few things that were off in the film because it would have great potential in the film festival circuits. Even though that was somewhat negative because it pointed out that there was a lot of room for improvement on my film, I was really encouraged to hear that people thought my film had such potential. Everyone seemed to understand my film. I didn’t have anyone coming up to me after screenings asking questions about the plot.

The best compliments the film received was that people felt that the old ladies reminded them of their family and that the house reminded them of a house in their family. But none of their family members may have looked exactly like any of my characters and maybe a house just like the one in my film didn’t exist in their family. I had touched on a familiarity that just seemed universal.

The audience appreciated my vibrant use of color, patterns, and detail. I received a lot of compliments on the overall painterly style and look of the film. I was also surprised to see how many people had noticed the little details that I had placed throughout the film. I didn’t know if the audience would have time to pick up on little things like the photographs on the wall next to the stairs being animated or that Marie was putting sugar on her pizza. I was thrilled that the audience was not only able to understand the plot of the film, but pick
up on some of the minor details that I had thrown in.

I left screenings feeling like my film had gone over very well. The audience may have liked the film better than I did. My film was appreciated as a different approach to a familiar story.

Conclusion

I had two goals for this film. The first was that I wanted to audience to understand the film. While this seems like a simple goal, I don’t think the audience really understood either of the last two films I did at RIT. At my last two screenings, the question and answer afterwards was filled with questions about the plot of the films. I felt that the audience definitely understood the underlying plot of my film. They may not have caught every little detail that I wished they would, but they did understand and appreciate the film.

My second goal of the film was to be able to match the 3d film with the images I had in my head. From the time I first came up with the idea, I had a clear picture in my head of exactly what I wanted everything to look like. Many people would be surprised to hear me say that I wasn’t satisfied with the visual look of the film because that’s what the audience most complemented me on. But I’m sure they would agree that if I wanted to be hard on myself for something, it should be the animation or the choppy rendering. I don’t claim to be a good animator. I was happy with myself for animating the film well enough that when it was finished, the audience understood it. I didn’t have any expectations beyond that. As for the rendering, time would have helped a little. Anything technical I could have done to speed up my rendering time was beyond my limitations. And the look of
the film: I had expectations for. When I think of each still frame of my films, I think of each as a piece of art. I see the computer and my 3d program that I use as my medium. Computer graphics is such a complex medium to work in. If I was working on a painting, I could just pick up my brush and fix an area that wasn’t to my liking. When it comes to 3d, sometimes it feels like you’re a painter with a broken arm trying to tweak your artwork. You have to take countless steps just to tweak every little thing that is wrong with a frame. You might fix the texture, but then when you render it again the lighting looks bad on that texture. You can tweak one shot, but then once you render out all of the frames of the animation your tweak actually made everything worse. It is very frustrating to create artwork that I don’t feel I have complete control over. While I am very happy with the way the film turned out, it’s not exactly what I had pictured in my mind. I don’t know if an artist is every completely pleased with a work of art they create. Flaws are necessary to give us a direction of where to go in the future.
Appendix A

Proposal

Producer: Mary Zinno
Start date: May 1, 2004
End date: February 2005
Running Time: approx. 4 min.
Budget: $22,718 total, $998 actual

Silver Lining

MFA Imaging Arts and Sciences
School of Film & Animation
3d Computer Animation
Rochester Institute of Technology
April 30, 2004

Thesis Committee:

Skip Battaglia, Chair
Assistant MFA Coordinator
School of Film & Animation

Stephanie Maxwell
Animation Chair
School of Film & Animation

Marla Schwepp
Coordinator
Graduate Computer Graphics Design
Inspiration

My film reflects a fleeting moment in my childhood when I began to get to know four eccentric elderly women of my family before they were gone. As a child, I was fascinated by them, but frustrated because their time on earth seemed so short to me although they had lived full lives before I had even met them. Through a child’s perspective, I thought of them as these amazing characters that I must have brought to life for the first time during my short visits when actually I had just brought them back to life one last time before they moved on.

Synopsis

During the time period in which I knew them, the four sisters lived together in one house. They all had routines and idiosyncrasies that defined their personalities. Their personalities also came out through their interaction with each other and with myself. Marie was much more active than the other three sisters, never sitting down. Mae was the easiest to get to know out of the four so she is shown first. Betty was the hardest to warm up to so she doesn’t really connect with the little girl until the end of the film. Only seconds after all four ladies are interacting with each other and the little girl, they begin disappearing one by one. Left is the little girl and Betty who finally now share that moment they had lacked in the past.

A young girl, about 9 years old, will serve to connect my memories and to take the audience to the perspective of a young child. The little girl is the motivating force behind the film. She is the way we meet each woman. Each woman floats like a memory in the background until the little girl makes contact with them and they become alive.

This film is an experimental narrative that depicts my memories, following the direction of emotional shifts rather than a story driven structure. The four women cycle in an endless loop, lost and out of touch with the world around them, doing some menial task under dark cool lighting until “awoken” by the little girl when she interacts with them. I plan to mimic theatrical lighting to symbolize the little girl awakening each lady from their cycle and stay lit. Instead of cutting to a woman in the next room, she will appear at the side of the screen with whatever props are necessary as it is done in theatrical performances. I chose to keep each character present in each shot for two reasons. I want to have this film be a representation of memories, and our memories tend to have subtle details that do not make sense. I also want to show Marie’s activeness compared to the other three women who tend to stay seated.

Story

Mae walks in the front door, newspaper in hand, and begins locking the door. She uses a chair and goes down the row of ten locks, locking them all. Suddenly, the hallway fills with light, Mae turns around and her face lights up as a little girl comes running down the hallway. They turn around hand in hand and walk back down the hallway. Mae has a tissue
half stuck in her sleeve and half held in her hand that she carries clutched as she walks down the hall. Her eyes always tear when she is smiling so big and she puts her tissue to her eye to wipe it. Mae holds her head up high in a constant smile as she strolls down the hallway. They sit down on a couch in a den, holding hands. A pool of light envelopes them. In the darker corners of the room is Betty, who sits staring into space, and Anna, who reads page after page of the Inquirer. Marie passes by repeatedly in the shadows of each doorway. Mae starts clearing her throat loudly and then begins telling a story to the girl at an almost inaudible tone. The little girl is playing with Mae’s hand, moving her rings up and down her fingers, and looking up at her adoringly.

We hear loud clanking of plates from the next room and the little girl turns towards the noise and her body follows. The little girl is now sitting on a stool next to the counter where Marie is standing. The girl and Marie are now enveloped in light. Mae, still lit, is sitting at the table, looking up with a smile, and clearing her throat. In the shadows, Anna sits at the table putting pills in a pill counter repetitively and Betty stands at the sink washing the same dish over and over again. The little girl sits on top of a 4 foot high stool in the kitchen next to the counter looking up at Marie. Marie is blotting a piece of pizza with a napkin. She reaches over her pizza and pulls closer a huge sugar bowl. She takes out a large spoon and pours a mountain of sugar on her pizza. The little girl giggles, almost falling off her chair. Marie looks behind her at the other sisters and quick gets another spoonful of sugar and hands it to the little girl with a smirk out of the side of her face. She picks up the pizza, looks at the little girl, and begins wiggling her eyebrows at her while she eats. She begins kicking her legs behind her instead of standing still.

Anna spills a container of pills all over the table and the little girl turns and runs to her. The girl and Anna are now lit. Anna has ten pill boxes sitting in front of her and she is filling each compartment marked by the hours with pills. She is measuring out medicine and lining up pills out of bottles. She keeps doing her work while glancing at the little girl next to her. The little girls sits down, pulls candy out of her pocket, and begins lining it up in front of her, organizing by color. Anna slides a green pill box over to her. The little girl begins organizing her candy in the pill counters. Anna looks down out of the corner of her eye while keeping her face straight and smiles. The little girl giggles as she puts more candy in her pill boxes.

We hear an awful noise. An old player piano with Marie seated at it rolls into the bottom of the screen in a way that we can tell it is representing another room. The piano’s wooden pieces are falling apart at the seams and some of the keys are missing. The piano is on and playing one song while Marie is playing a different song and singing badly along with it. The little girl jumps from her seat at the table and runs out of the kitchen space and
into the area of the piano and sits next to Marie. A light encircles them. The little girl swings her feet and moves along with the melody of one of the songs. Marie noticing the little girl, tries to put on even more of a show. As she sings, she strains to get her voice as high as she possibly can, not concern with it cracking.

Mae, Marie, and Anna are now constantly “lit”. We cut to a shot of Mae sitting in the hallway talking on a blue rotary phone in an inaudible voice. Anna is sitting next to her in a chair against the wall and Betty, still in a shadow, is standing at the front door cleaning it. The little girl is watching Betty from behind and from a distance as she cleans the glass. We can barely see that Betty has large thick glasses that consume her whole face. Her pupils fill the lenses so we don’t see her eyelids when we look at her. She has thin hair that sticks strait up in every direction as if she was just electrocuted. Betty stops every once in a while to look at the girl, but confused and with no emotion turns back to her cleaning. We can hear the loud motor ascending and descending in the background. The noise totally drowns out Mae. Marie comes riding up and down the stairs very slowly on a motorized chair. The little girl runs to the bottom of the stairs to join her.

The tension builds as the sisters activities begin to clash. We cut to Mae back in the den talking in an inaudible tone telling a story. Betty is sitting next to the television staring at the floor. Anna flies into the room as if she was kicked and turns around and yells at her sister. Mae starts clearing her throat and continues. A candy cart rolls into the bottom of the shot as the piano does before and Marie is standing at it next to the little girl. Marie starts opening the little girl’s pockets and dumps candy into them, filling them. She pauses and throws a piece behind her, hitting someone in the den in the head, and then continues filling her pockets. We hear someone in the next room yell because they were hit.

The little girl walks back into the den with their pockets hanging below her shorts. Mae looks up at her and smiles with tears in the corners of her eyes. Anna is reading the Inquirer and Betty is sitting in the corner staring into space. A close up of Betty cuts to a wide shot revealing Marie crouched next to her bulging out her eyes to make fun of her sister. Betty gets up and moves seats, walking into the side of the couch as she does so. They are all sitting in a room practically on top of each other because all of the furniture is cramped because of a big tree in the corner. The ceiling is about 30 feet tall and the tree reaches the ceiling, but the ladies and couches are very low to the ground. The windows are tall and out one we can see Marie walking around the yard with a bright red buster brown hat on. Anna turns and talks to Betty and she seems shocked and doesn’t hear anything she says. She starts opening a piece of hard candy and making so much noise you cannot hear
anything else. Mae begins to fade away while Anna is trying to grab at where Mae used to sit. Marie walks into the room and her grief makes her sit down for the first time in the movie. Anna begins looking for Marie, calling her and can’t see that she is sitting right across from her until Marie begins to fade away. Anna sits back full of grief and guilt and begins to fade away herself. The little girl is running from each fading woman to the next as if to try and keep them there. She turns finally to Betty in desperation when she is the last sister left. Betty keeps staring straight ahead with her big huge coke bottle glasses and blinks her eyes a couple of times. She stands up and grabs the vacuum as if to start cleaning, but then puts it down and goes to face the little girl. A pool of light comes up, encircling them both. Betty, finally awakened by tragedy and loss, bends down and enfolds the young girl in her arms.

**Approach**

The film will be done in 3d. Some backgrounds that will only be shown from one view will be hand painted. I will be designing the 3d elements to reflect a child’s perceptions so the look of the props and backgrounds as well as the design of the characters will be exaggerated. I will be adopting a style that mimics the minor details that are fuzzy in our memories by showing some extraneous objects in the background blurred.
### Thesis Timeline

**By the end of the spring quarter**
- **week 6**: meetings with committee
- **week 7**: revise treatment, meetings with committee
- **week 8**: propose to committee, meetings with committee

**Summer**
- **week 1**: character sketches, room sketches, storyboards
- **week 2**: character sketches, room sketches, storyboards
- **week 3**: low res prop modeling for placement
- **week 4**: set up cameras for shots
- **week 5**: model characters
- **week 6**: model characters
- **week 7**: model characters
- **week 8**: model characters

**Fall Quarter**
- **week 1**: model characters
- **week 2**: model characters
- **week 3**: texture characters
- **week 4**: texture characters
- **week 5**: texture characters
- **week 6**: character rigging ladies (use same for all 4)
- **week 7**: character rigging ladies (use same for all 4)
- **week 8**: character rigging child
- **week 9**: first pass animation
- **week 10**: first pass animation
- **week 11**: first pass animation

**Winter Quarter**
- **week 1**: second pass animation
- **week 2**: second pass animation
- **week 3**: second pass animation
- **week 4**: clean-up animation
- **week 5**: clean-up animation
week 6  high res prop modeling  
week 7  high res prop modeling  
week 8  high res prop modeling  
week 9  texture props  
week 10  texture props  
week 11  texture props  

**Spring Quarter**

week 1  lighting/rendering  
week 2  lighting/rendering  
week 3  lighting/rendering  
week 4  lighting/rendering  
week 5  compositing/stylize  
week 6  compositing/stylize  
week 7  editing  
week 8  sound edit  
week 9  titles and credits/print to master  
week 10  Screen
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Appendix B

Character Sketches

Mamie

• she was born on Halloween
• she was the oldest sister
• she was the shortest sister
  • she was always in charge of taking care of the other siblings following her father’s early death as a child
    • she worked at a bank
    • she never married
    • she lived her whole life in the house she was born in
    • she was the most matronly of all the sisters although she never had any kids
    • she never learned to drive or get a drivers license
  • she liked to work down in the basement, organizing her clutter
    • she liked to save old newspapers and mail and organize them in large stacks on tables in the basement
  • she always wore big flowing clothes that were too big for her
  • her voice sounded like a little mouse and she never talked quickly
  • she always cleared her throat for a while and then began speaking at a barely audible level telling a story
    • she cleared her throat louder than she talked
  • she told long stories
  • if people talked over her, she kept on talking figuring her audience would catch up when the other person stopped talking
    • she was always cold and needed to wear a sweater
  • her hands were as cold as icicles
• none of her rings fit her fingers so they always slid around
• she was always humming, never a recognizable tune, just random notes while she was working, or eating, or just sitting there
• every time she laughed her eyes would tear up
• she always carried a tissue in the sleeve of her outer layer of clothing even if she wasn’t sick and would pull on out to wipe her eyes
• she never wore just one layer of clothing
• she always had all kinds of stuff sticking out of all of her pockets
• she had a cute little smile
• she would always get a big smile on her face if you just looked at her
• when you visited her, she always sat on the couch next to you and held your hand
• she usually didn’t get up the whole time you were there
• it took a lot to get her annoyed
• Marie used to get her annoyed
her hair was always short and permed into small curls
she never wore makeup, maybe just lipstick on a special occasion
she wore glasses her whole life
she liked to wear navy blue
she loved to tell stories

Marie

she was born on the 16th of July, not a holiday to most, but in our small Italian town it was a festival around the corner of her house with rides and food
they all said she was born while the fireworks were going off
she worked as a telephone operator all her life
she was the first woman supervisor at the telephone company
she never married
she was the youngest of the sisters
she always wore tight short pants or bell-bottoms
she never wore a dull outfit and loved the color red
she drew really dark eyebrows in on her face and wore the brightest red lipstick she could find
she always had a different look
she sometimes wore this big red buster brown hat and didn’t take it off inside
she wore shirts that were too tight for her and cone bras from the 50s
she wore tiny Ben Franklin glasses, but would always bulge her eyes out and walk around saying she was her sister Lizzie
she always wore a belt, just around her waist, over her shirt
she always wore a short pocketbook on her shoulder or would swing it around in the air when she got bored
she never looked like an old lady
she never ate real food, only candy and deserts
this drove her sisters crazy
she put sugar on her pizza
she loved to get out and drive, anywhere
she never sat still
she never told a story
she’d pace around the house or walk around the yard and pick up sticks one by one because she couldn’t sit still
she’d even do it if she came to your house too
this drove her sisters crazy
she always went to the store for one thing
she loved to dance and if she had to stand in one place for too long would just start kicking her legs up in the air or kicking people in their behinds
especially her sisters
she only sat still for a half hour once and a while for wheel of fortune or jeopardy and she would yell out the answers even if she interrupted people talking
• she walked around while she did her crossword puzzles
• she love to play her old player piano
• she played three or four songs over and over again as loud as she could
• this drove her sisters crazy
• she never sat down for a meal
• she would kick her legs while she ate
• she was known by the kids in the neighborhood as the candy lady because on Halloween
• she would give each kid enough candy to fill their whole bag
• she would even give me and my sister a bag
• the only thing that made her sit down was alcohol
• and ALS

Anna

• she was born on Valentine’s Day
• she worked as a bookkeeper
• other than that was a housewife and mother
• she was the oldest sister and youngest sister all at once
• neither her or her sisters would admit her true age
• she was listed as several people at the local hospital
• she lied about her age on all documents
• and to her husband
• she was actually older than her husband
• she had a curvy, matronly figure
• she spent a lot of money on her fine accessories
• she always wore big broaches and big round earrings
• she was the intellect of the group, always reading
• she took lots of medicine all day long
• when she wasn’t taking medicine, she was organizing it
• she kept of log of everything she ever felt, to bring to her doctors
• she loved to “chisel a piece” of some kind of dessert
• she loved the colors green, orange, and brown and decorated her house in combinations of the three
• she also decorated with mushrooms
• she loved Asian art and knickknacks
• she always read the inquirer, stare and globe
• she had her hair done once a week
and slept with a chicken net on her head to keep it in place
Lizzie

- she was born on Presidents’ Day
- she wore huge coke bottle glasses her whole life, they looked like they were 3 inches thick
- she had frizzy hair that stood out in every direction
  - she never had a job and was married with 3 kids
  - but she didn’t seem very maternal
    - her husband used to scare the kids for fun
    - he had a lot of animals in cages in their yard
  - when you addressed her, she always seemed shocked
  - she never seemed to have any idea what was going on
    - she was always opening a piece of hard candy and making a lot of noise with the wrapper
    - she was always hot
      - she was always cooking something or just got done cooking
        - something and was still wearing the apron, but you never saw any food
          - her eyes really bugged out with the glasses
          - she always walked around like she had horrible balance
            - she was always busy doing housework and the other sisters were always telling her to sit down and rest
            - but there never seemed like there was anything to do
Appendix C

Pre-Production Sketches
Marie

Mary
Appendix D

Clay Models
Appendix E

Storyboards
Appendix F

Production Stills