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THE LANTERN

By
Ting Liu

Submitted in Partial Fulfillment of the Requirements for the Degree
MASTER OF FINE ARTS
MFA Imaging Arts/Computer Animation
SCHOOL OF FILM AND ANIMATION
ROCHESTER INSTITUTE OF TECHNOLOGY
ROCHESTER, NEW YORK
MAY, 2009

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The Lantern

A Computer Animated Film by Ting Liu

Length: 7 Minutes

Color



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E-mail: caustics@gmail.com

My thanks and gratitude to all who helped me throughout the creation process of
The Lantern.

My thesis committee Chair:
Stephanie Maxwell

My thesis committee members:
Nancy Ghertner
Duane Palyka

My parents

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Abstract

The Lantern is a computer animated master's thesis film by Ting Liu at Rochester Institute of Technology. This work creates an impressionistic and metaphysical atmosphere as the story reveals the relationship between a grandfather and his granddaughter and the promise she has made to make a lantern for her grandfather in order to conjure her memories of him. *The Lantern* is a reminiscence of the filmmaker's own childhood memories of her grandfather and the Chinese lanterns. This Thesis Report includes a discussion of the creation process of *The Lantern* as well as the original proposal, concept visualization artworks, and color stills from the film.

Thesis Report

The Concept

When I was a child, my grandfather used to take me to different Chinese lantern shows. Even after many years since he has passed on, the memories of my grandfather and the Chinese lantern shows remain vividly alive to this day. *The Lantern* is my personal interpretation of these memories of the Chinese lanterns, as well as a tribute to my grandfather. The memories reveal four distinct types of lanterns in Chinese culture: ice lanterns, hanging lanterns, lotus lanterns, and sky lanterns.

At first, I had only a vague idea of how the film might look like, but I had a clear idea of not wanting the film to fall into any particular genre of animated films. My goal was to make a film that would combine both a narrative and experimental filmmaking approach. This led me to seek the help of Professor Stephanie Maxwell, who understands the storytelling process and can work with students who would like to experiment with story and design. Stephanie gave me lots of ideas and inspiration on the concept of the film, and after quite a few meetings with her, I was able to have a clear vision in my mind of the different scenes and the storytelling structure of *The Lantern*.

As planned in the original proposal, there were six major scenes in *The Lantern*. Some of these scenes were the main character's actual memories taking place in realistic environments. Other scenes were more abstract or surreal as visualizations of the more emotional and interpretive experiences of the main character's own mind.

At the pre-production stage of the project there were many experiments done in order to determine the environment for each of the scenes, the designs of the characters, and the kinds of visual effects that would be included. I had always envisioned the film to have a traditional Chinese "feel." Therefore, the clothing for all the characters, as well

as the different lanterns were all designed according to traditional Chinese colors and forms. The scenes that took place in the main character's mind were particularly difficult to design because they were abstract environments that conveyed the main character's emotions that were elicited by her memories. The abstract environments and visual effects were constantly modified throughout the production process in order to find their right expression for any particular moment within the work.

Production

Because of my familiarity of both 3D and 2D composite softwares before the start of the production process, I knew to a good deal about of what kind of effects each software could achieve. I initially thought of using effects and composite softwares to create the more imaginary elements in each of the scenes (such as the colorful abstract backgrounds and the faces in the sky). I tried to create the same elements using Maya and Combustion. With more refining of the elements in Maya, I came to the conclusion that Maya performed better creating all the particle elements in the work. However, Combustion was still used to create several transitions between different scenes.

Lighting was the most time consuming part of the production process. The most challenging lighting effects were for the ice lanterns. Unlike objects in the real world, 3D objects in Maya are hollow. It is seemingly impossible to put a light inside a transparent object and correctly simulate how light would travel through to outside of an object, in this case the ice of the ice lanterns, for instance. There were no relevant examples and I had never seen similar lighting conditions being simulated inside 3D softwares. I found

that I could compensate for the limitations of the software by adjusting the shaders in Maya so that their textures would look similar to the ice. There was a lot of problem solving during the lighting and test rendering phase because the initial rendered images contained a lot of flicker, and the initial render time was too large. Through all kinds of trials and errors, I finally was able to reduce the render time to more than ten times faster than the original, and with as minimum of flicker as was possible.

I took the advice from Professor Stephanie Maxwell of having the camera movements simulating a floating lantern in many of the scenes. Thus the viewers can experience the film as being a part of the main character's memories. The cameras were particularly challenging to animate due to the fluid movement of a floating lantern, especially the changes of speed as the floating lantern moves by the force of the wind.

In the past I used to have the habit of animating the character's movements faster than necessary. Through the process of revising the character animation during the production of *The Lantern*, I have trained myself to animate the characters' movements slower so the pace is believable to the viewers. The timing of the facial expressions were also adjusted to make the characters more believable. Because this work is so personal for me and I am essentially the main character, some of the scenes such as when the grandfather disappear into the atmosphere, were especially difficult emotionally for me to animate.

There was a lot of revision of the visuals that took place throughout the production of the work. Some of these revisions include: the appearances of the particles in the night sky and the faces that emerge from these particles, and, the lights that the grandfather metamorphoses into, and the giant lantern in the final scene of the work..

Some of the particle elements, such as the northern lights that gather to form a lantern in the sky, were not originally planned on in the original proposal, but were added during production because of their enhancement to the visuals and the story itself.

Music

To me, music is just as important as the visual aspect of a film. During the writing of the original proposal, I considered the possibility of co-composing the music with a composer. After several meetings with the composer to deliberate on the possible kinds of music arrangements that would work for the piece, I realized that our views about Chinese music were quite different. So, I also decided that I would work alone on the music. It was the first time that I had worked on a piece of music for a film.

Initially, I wanted to work on the music and the visuals together. However, as the work progressed and many changes in the story were made, I realized it was too chaotic to continually adjust the fluctuating music and visuals. Therefore, I decided that it was best to finalize the music after finalizing the visuals. At the outset of the music creation, I knew I wanted to create a new arrangement based on a piece of ancient Chinese music. I also wanted to use the Chinese Zither as the main instrument of the piece because of its importance in the history of Chinese music, and because of the beautiful sound it creates. The ancient Chinese music, *Moon Is High* was my initial choice because of the meaning of the piece and its direct metaphorical association with *The Lantern*. I also considered using other ancient musical works for the basis for the musical arrangement and theme of *The Lantern*, but in the end I decided to stay with *Moon Is High*. In Chinese culture, the

moon represents thinking of loved ones, on the premise that when a person is looking at the moon, his/her loved one might be looking at the moon as well. Personally to me, the music piece, *Moon Is High* further accentuated the meaning of the film and the remembering of the loved grandfather by the granddaughter.

Screenings

Preparation for the premier screening of *The Lantern* was a bit chaotic. I needed to decide on the projection format, brightness and contrast qualities, and the appropriate sound mix levels so that the delicate intricacies of this work would be revealed during playback. I was overall pleased with the final screening of the work, except for maybe the sound being a bit on the loud side. I was touched and pleased by the overwhelming positive reaction and good feedback I received from the School of Film and Animation faculty and students, as well as from the general audience. One of the most memorable comments I received was about how *The Lantern* was not a “narrative”, yet still a story was still conveyed through the imaginative imagery and sound. I was also personally very happy to receive positive feedback for the film’s music from professional musicians in the audience. The most heartfelt feedback was hearing that *The Lantern* evokes in its viewers their own memories of their loved ones. As an animation film student, it means a lot to hear that I had not only created a film that was personally meaningful, but also a film which touched the viewers deeply.

Conclusion

During the production of *The Lantern*, I learned tremendously technically and progressed as a filmmaker. But above all, I would consider the whole process of making *The Lantern* as nothing short of an emotional journey. Growing up with my grandfather, I was extremely close to him. Even though he has been passed away for many years, I still feel a great sense of sadness every time I think about him. Therefore, I avoided thinking about him as much as I could. During the beginning to the middle of the film production process, a feeling of grief would come up when I would do anything or think of anything relating to the film. In the beginning, the sadness kept me from progressing at the rate that I originally proposed. The notion of changing my thesis idea entirely even occurred in my mind a couple of times, but then I would think about how my grandfather loved the Chinese lanterns and I knew that staying with the idea of Chinese lanterns for my thesis film was what my grandfather would have wanted.

Although the production process was slow at the beginning, the more I worked on the film, the more I became used to thinking about my grandfather and my memories with him. By the time I was at the end of the production process, I realized that I had grown emotionally. Now when I think of my grandfather, there is still sadness, but more than the sadness are the happy memories we shared. Each time I think about *The Lantern*, I remind myself of how much I was loved by the person I most admired, and how lucky I was to grow up with these beautiful Chinese lanterns.

Each kind of lantern in *The Lantern* has a special meaning. The ice lantern is very personal to me because it originated in my hometown: Harbin. The traditional

hanging lanterns are the most common type of lantern in China. They light the life of every Chinese person throughout history. The lotus lanterns carry people's wishes, and the sky lantern carries people's message to their ancestors. Before the production of *The Lantern*, I was worried that people who had limited knowledge to the Chinese lanterns might not be able to recognize the special meanings of each lantern. Then, I thought of a common trait of people throughout all cultures and ages: People use objects to contain their memories of love ones, and objects have personal meanings to them and inside their culture. That is why I think *The Lantern* is able to convey its message and is relatable. Just like the Chinese lanterns, *The Lantern* itself contains my personal memories, and it will always have a special meaning to me throughout my life.

Appendix A

Thesis Proposal

Thesis Treatment

Working Title: The Lantern

Producer: Ting Liu

Advisor: Stephanie Maxwell

Budget: \$2682.56

Start Date: May 2007

End Date: May 2008

Running Time: 6 minutes

Release Format: DVD

Concept

“The Lantern” is inspired by my childhood memories of my grandfather and the Chinese lanterns. It is about a granddaughter coping with the loss of her grandfather and fulfilling a promise she made to her grandfather through the help of the Chinese lanterns. The film combines impressionistic memories with experimental visual effects to convey that the film takes place in the filmmaker’s mind.

Synopsis

“Look what grandpa got you”, says the voice of an old man. A golden colored Chinese lantern radiates moving blurry beams of colorful lights. The colorful lights shift slowly and dreamlike as the silhouettes of an old man and his granddaughter take shape in the foreground. The figure of the girl reacts very happily, “Wow, what a beautiful lantern!” she exclaims. “When I grow up, I will make a giant lantern for you grandpa”.

The background changes and becomes the exterior of a brightly lit ice lantern radiating prisms of light into the night sky (Ice lanterns are architectural structures made of ice that are lit by light bulbs in the center.) The silhouetted girl and her grandfather are standing next to the ice lantern. The little girl is carrying the lantern her grandfather gave her in one hand, and her grandfather holds her other hand as they walk together. The grandfather points to the ice lanterns along the way. At the same time the voice over of a woman begins: “My grandfather loved the Chinese lanterns because our hometown Harbin is known for its unique ice lanterns. He would tell me many tales and stories about the lantern. The most memorable one he told me was that I can see my loved ones in the lights of the lanterns.” In the sky appear stars and lights that form images of family ancestors.

Suddenly, nighttime color changes to a reddish dawn. In the sky hang many Chinese color lanterns. The grandfather and the girl are standing on a low horizon line. No longer silhouettes they are warmly lit from the glowing lanterns that hang in the sky above them. The grandfather and granddaughter turn to face each other as they still holding hands. The grandfather points to himself then points to the lanterns in the sky. He then gently strokes his granddaughter on the head. The figure of the grandfather transforms into sparks of lights. The lights begin to fly toward the sky. The granddaughter holds up her hand and tries to not let go of the remaining lights. After all the lights fly into the lanterns in the sky, the girl slowly puts down her hand and stares at the sky. Darkness falls until only blurry reddish lights from the lanterns remain.

Lotus lanterns appear from the red lights to reveal that the lotus lanterns are floating on water. The water splashes in a circular motion to present the lotus lanterns as a reflection in the eye of the granddaughter. The lantern her grandfather gave her as a young child is besides her on the ground. She makes a wish on a lotus lantern in front of her (She closes her eyes, puts her hands together). She then puts the lotus lantern in water. The candlelight of the lotus lantern gives out flares of light that transforms the surroundings so that the girl and her grandfather are standing together against a background of lights. The lights around them illuminate their faces. The two of them are smiling at each other with the expression of genuine happiness.

A tunnel of light trails to the eye of the granddaughter who is now an adult. She is at an ice lantern show during dusk and is illuminated by the colorful lights. She is holding the lantern that her grandfather gave her. In the sky a Chinese sky lantern (similar to hot air balloon) is flying up.

The granddaughter then carries a sky lantern and releases it into the sky. She disappears and reappears over and over again to release sky lanterns into the sky. This repeats as more and more lanterns of many colors show up in the sky. She looks up to see all of the lanterns floating up to the sky. Light trails follow each lantern as they fly up. The sky lanterns keep moving upwards and gather together to form the shape of a giant lantern. Fade out.

Approach

This film will be produced in 3D computer animation. The primary software used will be Maya, 3D Studio Max, Photoshop, Combustion, After Effect, and Reason. The style of the visuals will be impressionistic and dreamlike to convey that the film comes from the filmmaker's imaginations, impressions, and memories.

The music will carry the emotions of the film. I will be collaborating with a music student to compose the music for this film. We will share the copyright for the music. The voices will be recorded from friends; there are no copyright concerns.

Budget

Working Title: The Lantern
Producer: Ting Liu
Advisor: Stephanie Maxwell
Budget: \$2682.56

Start Date: May 2007
End Date: May 2008
Running Time: 6 minutes
Release Format: DVD

	Qty	Cost	Total
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Pre-Production

Direction	1	In-kind	\$0.00
Script	1	In-kind	\$0.00
Paper & Pencils	5	\$4	\$20.00
Reference Books	3	\$50	\$150.
Research films	7	\$3	\$21.00
Pre-Production Total			\$191.00

Production

Modeling/Texturing		In-kind	\$0.00
Animation/Rigging		In-kind	\$0.00
Lighting/Dynamics		In-kind	\$0.00
Voice Actors	3	\$200	\$600
Music Composers	2	In-kind	\$0.00
Musicians	3	\$300	\$900
Instrument Strings	21	\$1.50	\$31.50
Computer Software	1	\$202.00	\$202.00
Computer Hardware	1	In-kind	\$0.00
200GB Hard Drive	1	\$226.96	\$226.96
Production Total			\$1960.46

Post-Production

Rendering		In-kind	\$0.00
Compositing		In-kind	\$0.00
Editing		In-kind	\$0.00
DVDs	15	\$4	\$60
DVCam tapes	2	\$12	\$24
Post-Production Total			\$84

Subtotal: \$2235.46
20% Contingency: \$ 447.10
Total: \$2682.56

Timeline

Working Title: The Lantern
Producer: Ting Liu
Advisor: Stephanie Maxwell
Budget: \$2682.56

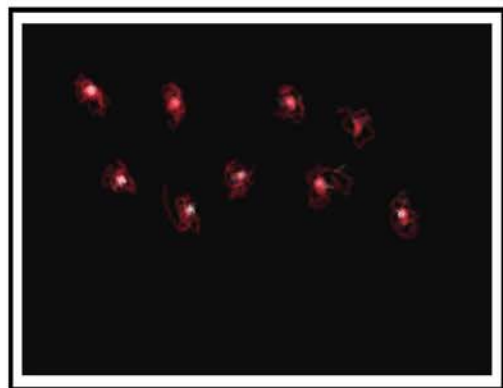
Start Date: May 2007
End Date: May 2008
Running Time: 6 minutes
Release Format: DVD

	2007							2008						
	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	
Character & Set Design														
Storyboards														
Dynamics Experimentation														
Modeling (Character Set)														
Rigging														
Character Animation														
Dynamics Animation														
Texturing														
Lighting														
Rendering														
Compositing														
Voice Recording														
Music Composition														

Appendix B

Concept Art







Appendix C

The Lantern Still Images

