The Prince Frog

Chi-Shiuan Lu

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The Prince Frog
Master of Fine Arts Thesis Production
Written, Directed and Animated
By
Chi-Shiuan Lu
School of Film and Animation
Rochester Institute of Technology

Professor Stephanie Maxwell (Chair)
Stephanie Maxwell

Professor Howard Lester
Howard Lester

Assistant Professor Lorelei Pepi
Lorelei Pepi
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Chi-Shiuang Lu  12/15/05
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I would also like to thank Professor Howard Lester who contributed important input and advice in the final phases of this production, and Assistant Professor Lorelei Pepi who provided helpful reference and ideas in the beginning stage of this production.

Finally, I would like to thank my parents and two sisters who have personally supported me with a lifetime of love and inspiration. This work could not have been made without them.
Concept and Story Idea

I have loved fairytales since I was a small child. The first idea that came into my mind when considering a topic for my thesis was to create an animated fairytale. The second thing I thought was that in making a fairytale I might be able to create a product that would have a commercial appeal. However, this kind of thinking might inhibit the potential for more creative freedom and innovation. After several discussions with Professor Stephanie Maxwell and Assistant Professor Lorelei Pepi, I began to research the possibility of creating an unorthodox fairytale in animated form.

I was inspired by this approach at an early stage after reading and watching different reference materials. A series of novels called, “Fairytales Variations” written by several Taiwanese writers provided much information about modifying fairytales. A traditional fairytale can be described as an exaggeratedly childlike version of normal life, which excludes sex, violence, and real human nature. But within the fairytale, there is much subtext and many alternative interpretations to be discovered. I felt that I would like to attempt to illuminate and subvert the innocent, and often bland and moralistic themes and characters of a classical fairytale to convey its alternative meaning and darker side where characters assent not through naivété, innocence and purity, but because of selfishness, evil and lustful eroticism.

The cutout animation Prince et Princess by filmmaker Michel Ocelot is an example of the subversion of the traditional fairytale. In this work, Ocelot uses the story of The Frog Prince in a whimsical way to poke fun at the power of instantaneous transformation to achieve reward without working for it. In the story, an engaged Prince and Princess take their first kiss, but find that when one kisses the other, the other turns into an animal. By repeating their kisses, they transform through many different species in an attempt to regain their original forms. This back and forth transformation goes on and on in Prince et Princess in a playful, poking fun way at the original fairytale. For me, Prince et Princess became the foundation and inspiration to take another poke at the original Frog Prince fairytale. As in Ocelot’s animation, I too would focus on the magic of the kiss and its power to transform. But, I would come at it from a different angle that would reveal more about the selfish and lust-seeking motives of both the Prince and the Princess.

Films made by cult filmmaker, Russ Meyer, such as Vixen!, Faster, Pussycat! Kill! Kill! and Supervixens also offered great enlightenment and references for this project. A
reversal in the lead position in the sexual politics between male and female in Meyer's films became a key characteristic that I would adopt in my work. In addition, the conscious and willful pursuit of love, marriage, personal happiness and sexual gratification by the contemporary woman would be the central motivator and would deliberately counter the modern unrealism of the passive and naïve Princess in the classical story. In my version of The Frog Prince, I would exaggerate and illuminate the "dirty" lust as the subtext of the original story. This dirty lust will be satisfying to both the Prince and the Princess in the end and in the domain of the idyllic fairytale kingdom where they will live happily ever after.
**Movie Title**

Since my animation was based on the renowned fairytale *The Frog Prince*, I felt I should play with variations of the original story title in creating a title for my work, especially to confer its connection to the original tale. Some titles I came up with were: *The Frog Prince Variation, The Erotic Frog Prince, An Erotic Fairytale* and *The Pussy Frog*. As a foreign student, I sometimes write words in sentences and phrases in incorrect order. One day, I noticed there were several word order mistakes on my working thesis proposal where I had written *The Frog Prince* title as *The Prince Frog*. It occurred to me then that *The Prince Frog* would be a relevant movie title because the word reversals “Prince Frog” from the original “Frog Prince” mirrored the reversals of meaning, roles and outcomes in my version of the original fairytale.
Preproduction

Technical Decision and Treatment

During the period of writing the original proposal, I started thinking about the kind of technique and art style that I should use on The Prince Frog. The decision was to be based both on the feasibility of the production process as well as on the visual aesthetics. Shrek I and Shrek II are animation films that I have admired very much. The art style, CG techniques and the way they present a fairytale in both of these movies were very attractive and well staged. I also felt that I would like the challenge of finding a way to apply the CG knowledge I had acquired as a graduate student at RIT to my thesis work. Therefore, I decided that to create this animation using computer generated imagery techniques.

As an independent filmmaker, it becomes a daunting task to create a five-minute three-dimensional animation that achieves the quality of the Shrek series, both technically and artistically. When I started writing the script, there were fourteen characters in The Prince Frog. In the sequence where the Prince is transforming from a frog to a human being, ten different characters would show up and each of them would do some funny antic. But, as the modeling work started, I realized the huge amount of work it would take to model, rig and animate all of these characters. So I had to rethink the importance of their appearances in the story. Story changes were made and all but one of these characters were eliminated: The Frog, who would do only one transform action, from the Frog to the Prince.

There were several other technical shifts made during the production stage. These will be illuminated in the following sections of this thesis.

Character Design

I always feel the style of an art work, especially a digital one, decides its destiny. The character design for The Prince Frog started with some research on Disney animation films because of its satire potential in my work. There are two kinds of characters in The Prince Frog: animals and human beings. The designs of all the characters were created to combine both comic-toon and photo realistic styles. The main characters are the Prince and the Princess. After referencing stereotypical Princesses and their costumes in Disney
animation films, both the Princess’ character design and her costume were determined and would mimick the Disney style. Due to the complexities of using Maya Cloth, I simplified the Princess’ costume to be a simple dress. The color would be red which portended her ultimate “hot” nature. Refer to Figures 1 and 2 for several hand sketches that were made in determination of the final design of the Princess during preproduction.

It was during preproduction, and as I was refining the script, that I decided that the Princess would not be beautiful, in contrast to the classic stereotype and Disney depiction of Princesses. I decided to create the illusion in the beginning that the story had only a few subtle differences with the original fairytale. As the story progressed the audience would come to realize that the work was really a subversion of the original fairytale and in a grand way!! This work also references movies of Shock Cinema, which introduces ideas and shows things that audiences react to with revulsion, shock and surprise.

In my work, the Princess’ real ugliness would not be revealed immediately. That is why for the initial scenes we do not see her face, but only the back of her which looks normal and makes us believe she is beautiful throughout. See Figures 3-5 for design sketches of the Princess.

![Figure 1: Original design of the Princess](image1.png)  
![Figure 2: Original design of the Princess](image2.png)  

![Figure 3: Ugly Princess (front)](image3.png)  
![Figure 4: Ugly Princess (side)](image4.png)  
![Figure 5: Ugly Princess](image5.png)
The Prince was designed at first to be a handsome young man, as shown in Figures 6 and 7. However, I found that by putting some "real" human characteristics rather than idealized handsomeness in the character would make him more interesting. I did a photo search on the Internet and found a male model that possessed an almost thug-like facial expression. (See Figures 8 and 9.) Since the Internet pictures had both the model's side profile and his front view, this assisted me in the modeling of his character as the Prince. The final images of the Prince are shown in Figures 10 and 11. For further dramatic result, I exaggerated some of the original model's features, making the eyes and the facial expressions of the Prince more evil and "hornier" looking.
Other characters, such as the beautiful Witch, the Frog and the creatures in the forest were designed from different resources and sketches. However, the style was basically maintained in the same tone as that of the Princess', which is a design that combines both photo realistic and cartoony styles. Some of the references and sketches for these characters are shown in Figures 12-17 below.
Environment Design

There were three main scenes in *The Prince Frog*: around the pond, in the forest and on a wide open plain in front of the castle.

From previous SOFA graduate teaching assistant experience in a miniature set design class, I had lots of tree trunk references and experience with building a forest. In this production, I designed several simple but effective forest and pond scenes where most of the action would take place. The reference images and final 3D images are shown in Figures 18-20.

Because the background of the story is set in Europe during the 15\textsuperscript{th} century, the design of the castle focused on Gothic design. After doing some research, I gathered sketches I had made together with some reference images (See Figure 21-23) and decided to “co-opt” the signature Disney castle as the basic structure while adding a few features that I personally designed.

![Figure 18: Reference of a forest](image1)
![Figure 19: Wireframe of a forest scene](image2)
![Figure 20: Final rendered forest scene](image3)

![Figure 21: Sketch of a Gothic castle](image4)
![Figure 22: Sketch of arch interior aspect](image5)
![Figure 23: Disney castle logo, reference](image6)
Storyboarding and Shots Separation

For a visualist like me, storyboarding is the most important process during preproduction. It breaks down the imagination and words into graphic representation that is in a similar form to the final product. It also helps one to think about how the story is to be told and what kind of cuts or dissolve effects should take place. I tried to make the storyboard very simple and easy to follow. As I kept working on the storyboard, I also realized that it helped me to develop the basic style of the graphics and the outline of the characters.

The whole story was broken down into 31 shots. (It was actually extended to 32 shots with several separated sub-shots after production started.) All the shots on the storyboard were put together to make an animatic. This was a good opportunity to estimate the length of each shot and to get an idea about how the whole story would be represented. From previous production experiences, I had become used to making an exposure sheet after the storyboard was created. The exposure sheet is a list that includes all of the shots in a numbered order, and includes shot descriptions and lengths. The storyboard and the exposure sheet were critical during the process of the production to be able to visualize and connect separate shots without losing the whole structure of the story.
Production

Modeling

The models in *The Prince Frog* were made by polygon, NURBS and the polygon converted from Paint Effects.

The three human characters: the horny Prince, the ugly Princess and the beautiful Witch, were made of polygons in Alias Maya. I used a Mel script called Connect Polygon Shape\(^1\) to increase the working efficiency. Because of previous working experience with CPS modeling, I didn’t have too many technical problems using it on this project.

The hair and fur of the characters were another issue during modeling. Building realistic hair is a difficult assignment, and how to make hair animatable is a very important task. Since the hair of the Prince was designed to be short, I, at first tried to use image textures to make his hair and eyebrows. It worked well in the first few test renderings, but as I started using Global Illumination\(^2\) on the whole scene, the hair became flat and did not react properly. Therefore, I alternatively used Maya Fur to make the Prince’s hair and eyebrows. And although it took about three times longer to render, the final result was worth it. The rendered fur looked very natural in the environment. To speed up the rendering time, I rendered the fur in each scene separately and composited these scenes with the model during postproduction.

The modeling of the hair of the Princess and the Witch was another tricky task. Since both these characters had lots of motions with long hair in the story, the movement of the hair became a critical issue. I tried to use Paint Effect and Fur in Maya, but none of these processes produced the right results. Furthermore, the render and simulation took too much time and hardware efficiency. Finally, I decided to use several NURBS segments to build the hair, and I used texture to cover the gaps between them. To control the movement of the hair for animation, I used skeletons and IK Spline handles.

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1. The Connect Polygon Shape (CPS in short) is a script written by Dirk Bialluch which can connect attributes between low polygon models and high polygon ones. Thus, modelers and animators can have both benefits of the speed (working on low polygon models) and the quality (rendering in high polygon models).

2. Global Illumination is a term of a lighting algorithm in computer graphics. By using this rendering method, the generated images can be more photorealistic; however, they are also more computationally expensive.
Other animal characters such as the Frog, the ducks, and the birds were also made of polygons. The squirrel model was originally created from a NURBS patch model, but for a consistent work flow, I converted it to a full polygonal model, remapped the texture and applied fur on it. Real pictures of animals were used as references for the modeling of the animals because they needed to closely represent their natural forms.

Modeling work for the sets was a little different from character modeling. Because the story emphasized the interaction between characters, I spent less time on the detailing of the sets.

The castle was made of polygons. As described earlier, the basic structure referred to was the castle on the Disney logo. I used many simpler and faster modeling tools to make the castle, such as Boolean and Bevel. I found that even though some of these tools could help speed up the modeling process, the models made by them could have some texture problems with non-triangular or quadrangular polygons.

Many background objects in the forest scenes were made of NURBS geometries. An advantage in NURBS modeling is that surface smoothness problems are of no concern. The big tree trunks, the ground and the pond in the forest were made of NURBS. For other smaller and far away trees in the background, I used polygons converted from Paint Effects in the set and made the polygon number as low as possible to speed up the process of working and rendering.
Texture Mapping

Texturing is one of my favorite aspects in production. The making of the textures in this animation varied according to the need for detail.

The texturing for human skin is among the most complicated. For simulating realistic human skin texture, I did a lot research and performed many tests. Steve Stahlberg’s theory of human skin shading was applied in this production. According to his research, the basic simulation for human skin needs three layers. The outer layer is used to simulate the reflection color shift on the light side and dark side of a human skin. The light side of a human skin has a warmer color while the dark side has a cooler color. In the middle is the essential skin layer where is put the color map, bump map, specular map and translucence map. I first generated the UV layout images for each of the models from Maya, and then took them into Adobe Photoshop where I hand painted these maps. (Normally, the first step would be making a bump map.) Some of the texture maps for the human characters are shown in Figures 24-29.

Figure 24: Bump map for Prince  Figure 25: UV layout for Prince  Figure 26: Color map for Prince
Figure 27: Bump map for Princess  Figure 28: UV layout for Princess  Figure 29: Color map for Princess

The texture maps for the other animals, and the simple objects and the backgrounds (such as the ducks, the Frog, the ground, and the tree trunks) were also hand painted in
Photoshop and with different materials applied to the geometries in Maya. The images in Figures 30-37 show a variety of texture maps drawn for this production.

![Figure 30: Color map for tree trunk](image)
![Figure 31: Color map for Frog face](image)
![Figure 32: Color map for Frog body](image)
![Figure 33: Color map for duck](image)

![Figure 34: Bump map for tree trunk](image)
![Figure 35: Bump map for Frog face](image)
![Figure 36: Bump map for Frog body](image)
![Figure 37: Bump map for duck](image)

**Lighting**

Because all the scenes in this work take place in outdoor settings, I used basic traditional three-point light combined with global illumination to simulate the quality of outdoor lighting. For the three-point lighting, in most shots, I used two directional lights for the key light and fill light, and another spot light was created for the back (rim) lighting. A Mel script called GI Joe[^3] was used to increase the quality of the global lighting. Although it took much more time to render[^4] the sequences, the quality of the rendered images made it worthwhile. One irresoluble issue occurred when rendering some fur objects with Global Illumination such as with GI Joe: it would take about ten times longer to calculate.

[^3]: GI Joe is a script written by Emmanuel Campin which generates at least 64 directional lights on a dome shape to illuminate the scene globally.

[^4]: Because of the high amount of calculation on a mass of directional lights, the rendering time of GI Joe would be much longer than traditional three-point lighting.
To resolve this problem, I rendered all the fur images separately and composited them during postproduction.

The shadows in the forest scenes were significant to simulate lighting in a forest environment. I added a spotlight in these scenes and applied a painted shadow map on it to get tree shadow effects. An example of a forest shadow map is shown in Figure 38. Because of the huge size difference between the scene and the characters, sometimes self-shadowing problems occurred on the characters. To resolve this problem, an individual spotlight for each character would be applied.

![Forest Shadow Map](image)

*Figure 38: The forest shadow map*
Animation

The rigging for each of the characters was designed for each's particular movements, appearance and qualities of action. The complexity of the skeletons and rigging methods for each character was different. The rigging for the human characters was much more complex than the rigging for the squirrels and ducks. For the small animals such as the squirrels, I used Forward Kinematics to control the skeletons and I would only set a few attributes for their movement. After the rigging and weight painting were completed, the rigged models were imported to the 3D layout scenes for animation.

3D layout is a very useful way to understand the process of animation. Based on the animatic, virtual cameras are set up in Maya shot by shot and unrigged characters are also put in the scene for a shoot. The characters are not animated but just move stiffly from place to place. By doing this during preproduction, I had a good opportunity to consider camera angles and camera movements, and to estimate the timing for each shot.

For getting the most accurate timing and gestures, I had some of my friends physically act out the same movements as the characters in the story. I took video clips of them and imported the clips into Maya as animating references. For each shot, I started by rotoscoping the poses for each movement, and studying the timing and position of each pose captured in a reference. After setting up all the poses, I would continue setting other key frames in between the poses. When these steps were complete, I would use the playblast function in Maya to check the animation in real-time. I would repeat the previous steps to fix the animation until I was satisfied with it. Most references for the Princess' dances were from SoFA graduate student, Mark Knox's Return to OZ documentary video clips. The reference for the Witch's bathing sequences was from a body wash commercial made in Taiwan. Still images from these two video references are shown in Figures 39 and 40.

Each character in The Prince Frog was animated differently, depending on their roles and the emotion in a particular scene. The Prince's actions were surreptitious and creepy in the voyeur scene. On the other hand, the Princess' movements were more fluid, childlike, joyful and carefree.
There were many other interesting technical processes involved in the animation process. For instance, lip-syncing and facial expressions were done by following the sound beeps on the soundtrack display attribute that Maya provides. The movements of the Witch’s hair while she is pronouncing her curse on the Prince, and the movement of the Prince’s giant testicles near the end of the story were both done by soft body dynamic simulation.
Postproduction

Compositing

The refinement of *The Prince Frog* took place during postproduction compositing of shots and effects. This compositing work presented many advantages to streamline and quicken the postproduction process. For example, I could make color corrections or create interesting lens effects easily in postproduction rather than in Maya which would necessitate very long render times. The program I used for the compositing work in this project is called Digital Fusion, made by Eyeon. It is a node base program that intuitively shows a schema of the entire node linkages applied to the footage sequences.

To eliminate the overtly sharp-looking imagery that directly results from rendering in Maya, the first thing I did to the Maya-rendered footage was to apply a one pixel Gaussian blur on it. Due to its ability to carry the Z-depth map, I rendered most of the images in Maya IFF format. In compositing software like Digital Fusion, the Z-depth map can be read and the depth information can then be used to efficiently generate many interesting special effects, such as variations in depth of field and atmospheric fog effects. Most shots in *The Prince Frog* utilized the depth of field effect to simulate real film camera lenses effects.

Music, Soundtrack and Dialogue

The audio track in *The Prince Frog* combined three elements: ready-made music, vocal songs and dialogue.

Ready-Made Music

Most of the background music and sound effects in *The Prince Frog* fall into this category. The main source of the ready-made music was the School of Film and Animation’s archived soundtrack collection CDs. For instance, the background music tracks in the first few scenes, including the scenes when the Witch is bathing and the scene in which the Prince turns into a frog, utilized the prerecorded CD sounds of water, frog vocalizations, bird singing and balls flying.
**Vocal Songs**

Because this work is also a satire of Disney-style animation, the music also participates in this subversion by adopting iconic and stereotypical musical styles and gestures present in Disney animations.

Several scenes in *The Prince Frog* contain sweet female vocalizations. I composed some simple musical passages that were sung by RIT Industrial Design graduate student, Diana Lin. (Lin is a designer and she also assisted me with the technical procedures of the sound recording.) Since Lin had previous professional experience recording personal songs and she has an amazing singing range and many varieties of singing styles, she was a great artistic and technical resource in building the soundtrack. Lin and I recorded three different vocal tracks in the short period of two days and I was really pleased with how well the music fulfilled its satire role in *The Prince Frog*.

**Dialogues**

There were four voice actors in *The Prince Frog*, all SoFA graduate students: Ferris Webby was the voice of the Prince, Stephanie Benvenuto was the voice of the Princess, Karabo Legwaila performed the narration, and I did the voice of the Witch. The dialogue recording was done in a short period of time, and I feel that there is a need to improve the quality of the recordings.

**Editing**

The editing work followed the animatic and the same editing timeline was used throughout the production process. Animatic sequences eventually were substituted with completed clips after rendering and compositing. Fine cutting and dissolve effects became the predominant tasks during this process. Each cut and transition was intended to have a meaning and create a coherency; but, due to my lack of experience with film editing, I approached the process with trepidation. Fortunately, my thesis chair and advisor, Professor Stephanie Maxwell gave me many precious suggestions about the editing throughout the making of this work. Due to time constraints, both the image editing and sound design and syncing were a little weak by the time of its premier screening. There is still much to be done to improve this aspect of the work.
Conclusion

The production of *The Prince Frog* was a long and challenging process. Even though I had previously produced two short animated films of the same five-minute length, the unique content and approach in telling a traditional fairytale from a radical and shocking perspective presented me with countless challenges and possibilities, from concept through post.

For an Asian student, the completion of a work like this is not only an achievement in education, but it can also be personally meaningful. For my art to be a commentary on and a deviation from traditional moralities is one of my greatest aspirations.

From the production perspective, the preproduction work, the timeline schedule and the exposure sheet were invaluable and saved me a lot of time and work during the production and postproduction periods. This kind of preparedness can be a critical asset to independent filmmaking and studio production.

There are still many things that can be improved in *The Prince Frog*. For instance, the soundtrack recording and dialogue synchronization were done poorly, and the compositing on some shots is too coarse and can be seen when projected. I will also continue to refine my skills in animation technique and final visualization. The making of *The Prince Frog* has been an enriching and educational experience.
Appendix A
Original Proposal
**Working Title:** The Prince Frog  
**Producer:** Chi-Shuan Lu  
**Budget (Actual):** $2849.00  
**Start Date:** 05/26/2003  
**End Date:** 02/25/2005  
**Running Time:** 4 Minutes 50 Seconds 03  
**Release Format:** DV Tape

**Story**

This is a playful and erotic version of the famous fairytale “Frog Prince”. The story is about an ugly princess who gets away from the protected environment and encounters the real world. As the story goes, she meets the frog prince who was forbidden to be a frog by a wizard because of his concupiscence. The princess coincidently kisses the frog’s butt and disenchants the prince from the spell. In the end, the ugly princess gets the man of her dreams and the erotic prince gets what he wants, too. This work also reverses the traditional leading position in sexual relationship between male and female and reflects contemporary attitudes toward love, sex and marriage in the pursuit of personnel happiness and sexual gratification. This film will also be a satire of Disney-style animations, which has very Disney-style beginning and ending.

**Background and Setting**

The story is based in Europe during the 15th Century. There is a castle in a big, wild, flat field, which is the ugly princess’ home.

**Synopsis & Treatment**

A landscape of countryside, birds are singing, and flowers are blooming. Besides a pond, in the back of a tree, a young prince is sneak peaking something happily. There is a beautiful witch bathing in the pond and suddenly the witch hears the sound made by the prince and notices that someone is watching her behind the bush. The witch appears in front of the prince while he is masturbating. The prince is shocked and stops his action. “You like to watch people bathing?” Says the witch, “All right, I will let you stay here none stopping doing your disgusting job until somebody is welling to kiss your butt.” The beautiful witch turns into a horrible monster and starts the magic. The poor prince is then turned into a frog. He sadly jumps away.

Sometimes later, on a hill, a castle sits overlooking the countryside. The door of the castle opens, and a young woman of nobility with beautiful long hair and sexy body shape
comes out. She moves to a field and runs, dances, jumps and sings. Her voice is excellent and attracts many small cute animals. She is so interested in all the new things around her. She touches, smells and kisses the flowers, butterflies and animals, but as she kisses them, they pass out or wither away. Her face shows out finally. She is ugly, animal-like, horrible, and lumpy.

She has brought her favorite golden ball that she throws in the air and bounces in game playing. When she goes near to a pond, she carelessly loses her ball into its deep waters. She starts weeping at the shore of the pond. A voice interrupts her crying. “What ails you, king’s daughter?” She raises her head and sees a huge frog appear in front of her. The frog holds her golden ball and stares at her. As the princess raises her head, the frog saw her face.

“Oops, sorry for bothering you…” The frog puts the ball back to the shore and prepares to jump back into the pond, but suddenly he is picked up from back by the princess. “Dear frog, you are really my hero. You saved my golden ball. I have to thank you.” She starts kissing him on his butt. “Oh my God, I am gonna…” The frog doesn’t have chance to finish his word before the magic starts. After some fog, sparks and smoke, the frog turns into the prince and comes out from the princess’ mouth. The princess is a little bit shocked but she finds the prince is good-looking and gorgeous. As the prince still feels dizzy caused by the magic change, the princess’ huge lips approach him again...

Sometimes later, outside a window of the castle, sounds of flirtation and shouting come out from the room where the princess and the prince are in a wild and raucous sexual encounter. The prince also finds that the princess doesn’t only have ugly face, but she also has great body and fancy sexual skill (or kissing skill). The princess and the prince eventually get married and live in happiness together forever.

**Approach**

This film will mainly be made in 3D CG. Most of the characters and background will be designed by hand drawing first and then modeling in Maya.

Live action video will be shot as reference for animated human movement.

The sound will be a mix of brief recorded dialogue, sound FX and original music.
Budget List

Working Title: The Prince Frog
Producer: Chi-Shiuan Lu
Budget (Actual): $2,849.00

Budget Breakdowns

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Start Date: 05/26/2003
End Date: 02/25/2005
Running Time: 4 Minutes 50 Seconds 03
Release Format: DV Tape
### Wages & Salaries

**Above the line:**

<table>
<thead>
<tr>
<th>Role</th>
<th>Estimated Cost</th>
<th>In-kind</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Director</td>
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<tr>
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<tr>
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<td>Voice Actors</td>
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<td><strong>Above the Line Subtotal =</strong></td>
<td><strong>$11,170.00</strong></td>
<td><strong>$11,050.00</strong></td>
<td><strong>$120.00</strong></td>
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<table>
<thead>
<tr>
<th>Role</th>
<th>Estimated Cost</th>
<th>In-kind</th>
<th>Actual</th>
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<tr>
<td>Lead Animator</td>
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<td>TD</td>
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<td>Modeler</td>
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<td>@ $50.00 per character X 10 characters =</td>
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<tr>
<td>Rigging</td>
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<td>@ $10.00 per secondary character X 8 =</td>
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<td>Lay Out Artist</td>
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<tr>
<td>Editor</td>
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**Wages & Salaries Subtotal** | **$16,605.00** | **$16,085.00** | **$520.00**

28
## Administration

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**Administration Subtotal** $1,030.00 $410.00 $620.00
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<td>Character Design</td>
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<td>----------------</td>
<td>---------</td>
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<td>Computer and Equipment</td>
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## Post Production

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<tr>
<td>------------------------------</td>
<td>----------------</td>
<td>---------</td>
<td>---------</td>
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<td>Release prints</td>
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<tr>
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<tr>
<td>DVDs @ $2.00 per disk X 10</td>
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<td>Beta Cam @ $10.00 per tape X 10</td>
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<td>Festival entry fees</td>
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**Distribution Subtotal**  
Estimated Cost | In-kind | Actual  
---|---------|---------|
$1,350.00 | $0      | $1,350.00 |
Working Title: The Prince Frog
Producer: Chi-Shiuian Lu
Budget (Actual): $2849.00

Start Date: 05/26/2003
End Date: 02/25/2005
Running Time: 4 Minutes 50 Seconds
Release Format: DV Tape

Sketches & Storyboard
Appendix B
Complete Storyboard
<table>
<thead>
<tr>
<th>Shot 1</th>
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<th>Shot 3</th>
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<td><img src="image3.png" alt="Image" /></td>
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<tr>
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<td>Shot 6</td>
</tr>
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</tr>
<tr>
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<tr>
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<td><img src="image15.png" alt="Image" /></td>
</tr>
</tbody>
</table>

**The Prince Frog**

*A Chi-Shiuan Lu Film*
Appendix C
Production Stills
Picture 1: The Witch is bathing in a pond.

Picture 2: The Prince is peaking at the nude bathing Witch.
Picture 3: A shot of the Witch discovering the masturbating Prince.

Picture 4: The Witch is putting her curse on the Prince.
Picture 5: The Prince is immediately transformed into a Frog by the Witch.

Picture 6: The animals in the forest hear the Princess' sweet singing. (1)
The animals in the forest hear the Princess' sweet singing.

The animals in the forest are running away from the Princess.
The Princess performs some exaggerated gymnastics in the forest. (1)

The Princess performs some exaggerated gymnastics in the forest. (2)
Picture 11: The Princess carelessly loses her Golden Ball in the pond.

Picture 12: The Frog returns the Golden Ball to the weeping Princess.
Picture 13: The Frog is shocked when the Princess raises her head.

Picture 14: The Frog tries to flee from the Princess.
Picture 15: The Princess catches the escaping Frog. This is also the time the audience sees the Princess’s face.

Picture 16: The Princess thanks the Frog.
Picture 17: The Princess starts licking the Frog.

Picture 18: A magical transformation takes place while the Princess licks the Frog.
The Frog has suddenly escaped from the licking Princess.

Picture 19: The Frog has suddenly escaped from the licking Princess.

Picture 20: The Frog changes form in mid air.
Picture 21: The Princess is delighted when the Frog changes to the Prince.

Picture 22: The Princess’ rear view of the newly transformed Prince.
Picture 23: The Princess uses her best-loved Golden Ball to attack the Prince.

Picture 24: The Princess pulls the unconscious Prince back.
Picture 25: At the end of the tale, a bird flies toward the castle.

Picture 26: Two birds arrive on top of a wall at the castle.
Picture 27: The two birds fly vigorously away from the castle.

Picture 28: The final shot of The Prince Frog which mimics a Disney style ending, including the castle in a fireworks display, small animals and a closing red curtain.
Appendix D
Production Credits
The Prince Frog Credits

Director and Producer:
Chi-Shiuan Lu

Voice Actor:
The Prince Ferris Webby
The Princess Stephanie Benvenuto
Narrator Karabo Legwaila
The Witch and the others Chi-Shiuan Lu

Singer:
Diana Lin

Soundtrack and Sound Effect:
RIT SoFA Archived Music CDs

Thesis Committee:
Stephanie Maxwell
Howard Lester
Lorelei Pepi

Special Thanks:
My dear family and friends in Taiwan
Stephanie Maxwell and all faculties at SoFA
Chun-Husang Huang
Li-Huai Chang
Diana Lin
Jiunn-Fu Su
Han-Yi Tseng
And all my lovely Taiwanese friends

Mark Knox and all my coolest classmates
Greg Smith and all the labbies and folks in the 3D Lab
Appendix E
Bibliography
Bibliography

Films and Videos:

Articles and books:
- Steve Wright. *Digital Compositing for Film and Video* (2002). Published by Focal Press.

Websites:
- Highend 3D CG community website, MEL scripts and Maya tutorials resources
  *http://www.highend3d.com*
- Learning Maya tutorial searching website
  *http://www.learning-maya.com*
- Disney website, Princesses’ introductory pages
  *http://disney.go.com/Princess/html/main_iframe.html*
- Shrek official website
  *http://www.shrek.com*
- Paul Debevec personal website, HDRI discussion and resources website
  *http://www.debevec.org/*
- Steven Stahlberg personal website, human skin shading tutorial
  *http://www.androidblues.com/shadetut.html*
- Wikipedia encyclopedia website
  *http://en.wikipedia.org/wiki/Main_Page*