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ARARAT

by

Leah M. Bosworth

Submitted in Partial Fulfillment
of the Requirements for the Degree
MASTER OF FINE ARTS

MFA Imaging Arts/Computer Animation
SCHOOL OF PHOTOGRAPHIC ART AND SCIENCES
ROCHESTER INSTITUTE OF TECHNOLOGY
ROCHESTER, NEW YORK
November, 1996

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Title of thesis: "ARARAT"

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Date : November 15, 1996

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My goals for my thesis movie "Ararat" were simple: to combine 2-D and 3-D imagery, and to make people laugh. From those points, I touched off a world of complex issues.

STORY AND RESEARCH

I based the story of "Ararat" on a legend I heard about Noah's Ark concerning the origin of the cat: rats invade the Ark, and God sees a need for a smaller version of the lion to exterminate the critters. The difficulty in fleshing out the story was setting up a series of gags and situations for the rats to annoy Noah and the others that would lead up to the solution. I have a painting and still image background, where the story must be told as soon as the viewer gazes upon the image. Therefore, it was very hard for me to stretch out a story in time. I watched a lot of slapstick comedy such as "Laurel and Hardy," "The Three Stooges," and "Mr. Bean," as well as many old Warner Brothers and Walter Lantz cartoons. The cartoons served a dual purpose--to show me how a story can flow through gags, and to show me how to time and exaggerate motion, such as squash and facial expressions. I brainstormed, consulted with fellow animators, and listed as many outlandish pratfalls as I could, before narrowing down any ideas. I had to remember that nothing is too crazy in the world of animation. There is nothing wrong with Noah balancing a bunch of boxes on his head, foot, and arms, only to have a rat crawl up his body, thereby causing utter collapse. Likewise, in the animation world, there is nothing wrong with a rat swinging from a rope to steal a cookie from Noah's hand; and of course, there is nothing wrong with rats in a submarine harpooning a cookie from Noah's hand.

In the course of story development, I decided to have Noah solve the rodent problem himself, and used a bit of "Jewish humor" to do so. Making Noah the hero

would simplify the plot, give him more strength as a character, and leave more room for gags. A cat does make an appearance as a “victim” of the rats, as does a turtle. Once I emerged out of the “humor” block, I mapped out my chosen gags (the “meat” of the story), reserving the silliest one for the end--just after the viewer is made to think all is well and glorious in the mountains of Ararat. I saved all my gag ideas as storyboard pieces. In case the ones I chose did not work for whatever reason, I could always delete, insert, or rearrange them if I felt it would be better in the movie. I did end up rearranging many scenes later on, both in production and editing. I am very grateful I planned my gags.

The beginning and ending of the story are bookends, slowly paced in contrast to the slapstick of the main body. The beginning shots (Noah closeup, the Animal Processional, rats sneaking on board, Noah entering the Ark, Noah about to eat a roll) are designed to establish the “characters” and my painting and animation style, as well as to set up the viewer for action. The end shots (Noah and the rainbow, animals exiting the Ark, Noah relaxing) mirror the beginning, even to the point that Noah is interrupted as he is about to eat, just as he was in the beginning.

In addition to the comedic research, I also studied animal motion and did many pencil sketches and tests. I studied Muybridge and watched "Willard" and "Ben" (two classic campy rat movies from the 1970's) several times to get a feel for rats' behavior and motion. I also used elements from the real Biblical story of Noah, such as the name ("...mountains of Ararat") to fuse the story together.

I was determined to use the music for my thesis long before I devised the story. I just absolutely wanted to use the two klezmer pieces, "Dybbuk," and "Negev," by Kol Simcha, for a movie. Because I was familiar with the songs' timing and structures, it was relatively easy for my sound editor to incorporate them into the varied pacing of my movie. Instead of an afterthought, as is the case unfortunately in

many movies, the music becomes just as strong and connected a force as the animation in my movie.

AESTHETIC

I have a very painterly (and often complex) artistic style, and like paying attention to details. In drawings and paintings it can show up as a wrinkle in a face, the streaks in an eye iris, the veins of a leaf, etc. In animation, it additionally translates to subtle character motions and expressions. Many motions (eye blinks, breathing, ruffling of fur or cloth) are things that may not consciously be noticed by the viewer. However, when they are absent, the viewer often "senses" something is not quite right. My detail obsession also leads to "subplot" resolutions or explanations that are not really necessary to the story, but I did them for me.. An example is the cat and turtle that appear snoozing happily with Noah at the end of the movie. Now no one really cares (or remembers) what "happened" to those creatures after the abuse they endured, but I do. I created them, so I feel I must resolve them.

Such thinking lends itself to the medley of techniques I used for this movie, which I am about to describe. I originally wanted to create the entire movie in 3-D, but I desired lush fur and painterly textures. Three-D packages can map such textures wonderfully, but I feel there lacks an organic "hands-on" quality that can be achieved in 2-D. Also, my movie demanded a lot of character articulation--from walk cycles to bread snatching. I felt I would have more control over character motion in 2-D, albeit hand drawing each frame is more labor intensive than keyframing or inbetweening in 3-D. Early on, I decided to "marry" the two methods. I built rough 3-D animal models in StrataStudio and Infini-D, and recorded all possible motions I would need. Essentially, I built a library of movements. I then took each frame and painted

whatever animal I needed (rotoscoping) over it in Photoshop. Most of my creatures have their original 3-D sources obscured because I painted over the entire objects. Noah's head remains pretty much in its 3-D state, surrounded by 2-D painted hair and a beard. I designed his eyes in 2-D and mapped them onto 3-D spheres. I took him back and forth from 2-D to 3-D several times. The moving Ark is another example of 2-D and 3-D combination animation. I rendered the Ark in 3-D, and made it toss and turn (and eventually almost sink) by hand in Photoshop.

My backgrounds are a combination of 2-D and 3-D as well. There are really 2 raw backgrounds--the exterior of the Ark plus mountains and sky; and the interior. I created the backgrounds in Electrogig-3DGO, using its Mapfactory for most of the textures and bump maps. I made some camera pans and zooms to get different views of the scenes, and FTP'd the rendered frames from UNIX stations to the Macintosh. I tweaked some features (roughing up the wood panels of the interior walls by Adding Noise, for example) in Photoshop, and even sampled some of those existing textures and objects for use elsewhere. For example, the rope the rat swings on (when he steals the bread out of Noah's hand towards the beginning of the movie) is from one of the ropes tethering the Ark to the ground. The wood textures on the boxes and crates came from some of the wall panels I created in Electrogig, mixed in with a healthy dose of wood textures I have collected and created.

TECHNIQUE

I chose Photoshop for "assembling" all the pieces of my movie first and foremost because I was the most familiar with it. I knew about its Layering capabilities and have used it to construct "fine art" images in the past. Many would not think of Photoshop as a paint program; it is utilized mostly for image editing and

retouching ("post-production"). For me, however, the tools and filters in Photoshop (as well as additional plugins such as Kai's Power Tools) beg to be used in painting.

One technique I used throughout my thesis is painting with textures, alluded to in "The Aesthetic" section. I have collected and created a whole texture library over the years, everything from wood (there are at least a dozen different wood textures in my thesis) to jellybeans, to my own cats' fur. Some textures are completely obscure because of the tweaking I do. (Ironically, I did a lot of texture creation in Painter, the "true" paint program, but always reverted to Photoshop to do the bulk of my work.) Noah's cloak, for example, is a composite of autumn leaves and a paisley pattern from one of my shirts. Once I have what I need for textures, I use the cloning tool to sample it and apply it to an image. Obvious examples of texture painting are the cat and rats' fur, and Noah's hair. To show softness or movement, I apply the Airbrush and Smudge Tools, resmudging from frame to frame. I sometimes use Motion Blur or Gaussian Blur to enhance the illusion of movement. All the water splashes in my thesis were simply Motion Blur and the Smudge Tool, extended gradually over a series of frames. Other favorite filters and tools include Add Noise, Fragment, Waves, KPT Texture Explorer, Replace Color, Invert, and Feather.

Using the Layers capability of Photoshop 3.0 for animation purposes is a convenient way to register and edit graphics. Photoshop Layers can be named (great for frame numbering and listing graphics), duplicated, moved, and combined. Filters and effects can be individually applied to a layer without affecting the other layers. The semi-transparent rain and sea water in my movie are examples of this effect. Each layer can be duplicated to another Photoshop file or exported as one of many file formats. Layers can be made hidden or visible, which helps keep confusion down when working. Whatever layers are visible when I export the image is all that will be visible in that particular image file. Thus, I can create frames.

The default layer in Photoshop is called “Background” and this is where I usually place my 640x480 background. I place all the graphics I need for the background in separate layers and move them around as needed. I composite them into one background layer by selecting “Merge Layers,” and voila, I have a background. It does not matter whether I originally created the graphics in 3-D or 2-D; once I export them from their respective software they essentially become 2-D.

I create a new layer above the background where I can create or paste an object I wish to animate. Each successive layer is “on top” of the previous one, so graphics in upper layers appear in front of lower ones in the image. These layers can be rearranged at will. To make successive frames of the graphic in motion I select “Duplicate Layer.” I tweak the second layer to my satisfaction, duplicate it, and tweak some more. Each duplicated layer is in exact registration with the previous one, which makes this technique ideal for walk cycles and other animation staples. With the Move tool (looks like a crosshair) and the shift key down, I can move and constrain each graphic in a layer. Layers can be grouped and moved simultaneously with this tool. An example of duplication and movement are the rats (or just about any other moving thing) in my movie. I created a “base” rat walk cycle, then duplicated each layer. I changed colors and fur for each set and soon had a cloned army of rats.

I can mask out or reveal lower layers by cutting out portions of an image in an upper layer. For example, in scenes where I have a window with rain, I make the sky and rain the bottommost layers, and the window and wall are in front. I cut a hole in the window which reveals the rain.. If I duplicate a layer, I can create a mask to cover portions of graphics that are “sandwiched” between the base layer and the mask layer. For example, to make my animals appear to enter the Ark and disappear, I duplicate the “Ark” layer and remove everything but a portion of the Ark and the doorway. I place this layer above all the layers of animals and make sure it constantly remains

visible as I export my PICT files. Other examples of this technique include the matzo balls punching holes through the floor and the rat “exodus” off the Ark.

Once I have exported my series of frames, I load them into players such as Director. I have 2 methods of exporting. One is to include the background layer each time I export frame layers. This keeps me from having to worry about antialiasing or cleaning up graphics, but the file sizes can get extremely huge. I used this technique for most of my movie scenes. Since I was single frame recording I did not have to depend on Director’s playback capabilities. I also was fortunate to have access to storage media. I may reduce the size of the entire Photoshop file (saving it under another name, of course), and export the frames. I can preview my animation in Director, Premiere, or even as a Quicktime. Towards the end of my thesis process, I started saving files as compressed JPEGs till I needed them, which saved a lot of disk space.

Having several moving graphics obviously requires many layers, so it is extremely important to keep my file sizes down as well as remain organized. I use strict naming conventions for naming my layers and all my exported files. I also took advantage of Photoshop's Command Sets--a customizable palette where I can quickly access all my most commonly used menu options and filters. The Photoshop Layers technique’s biggest drawback I have found is the time spent monotonously exporting frames, as well as occasionally messing one up and retracing my steps to fix it. In the future, I will use a batch converter such as DeBabelizer or Hijaak. Other than that, the Layers technique serves its purpose well. For Macs I highly recommend at least 32 MB of memory. Windows handles memory slightly better, but in both cases I recommend a lot of storage space for Photoshop to swap memory.

TIMING/ANIMATION ISSUES

I can resolve timing problems using animation and editing techniques (more about that in the “Editing/Assembling the Movie” section). Timing is very crucial in order for the relentless series of pratfalls in my animation to succeed. I needed to strongly incorporate the classic elements of animation, such as squash and stretch and anticipation on the creation end. I also needed to know when to cut or add as little as one frame per scene in editing to make a scene work. For example, in both scenes where a rat snatches a cookie from Noah, I had to test the exact location of Noah’s hand and face in relation to the rat’s stealing method of choice. Anticipation is key-- just after the cookie is initially stolen, Noah must be thrust forward, then snapped backward, then he follows through on his response to the loss of his cookie.

I have found that pauses in motion can be where the real life in animation lies. For example, when the rats proceed up the rope into the Ark in the beginning, I originally had them all file in rather monotonously. Observing rats’ unpredictable behavior (both in reality and in my research) showed me I needed to make them more ratlike, which would also make them funnier. I started with one rat sauntering up the rope. Halfway up, he stops abruptly, stands up, sniffs the air, continues sauntering a bit, stands up and sniffs again, then continues the rest of the way. When he gets to the opening in the ark, he sits back on his haunches preparing to leap, pauses, then stretches out as he disappears into the ark. Then, another rat scurries up halfway, stops, sniffs the air, and continues. Then, in editing, I cycled an approximately three second pause without any rats. I finally let the rest of the rats run up the rope, which establishes their mischievous nature before they even commit any pranks.

More examples of pauses-before-action include the scene where a rat walks up to Noah’s leg (while he is immobilized from balancing boxes on just about every limb of his body), pauses, then takes a long leap up into Noah’s cloak and up his leg. Also,

there are pauses in the scenes where the rats squash and leap when they hop on boxes to flee the flooding Ark, and when they dive off the Ark into the sea. Other types of pauses include a small stop at the end of the sleeping cat's "breathe cycle" at the beginning of the movie before a rat is about to pounce on him--this adds weight to the cat and makes him appear to be in a deep sleep. There are pauses and exaggerated squashes in the scene where Noah, encumbered by boxes, feels a rat crawl up his face. Then the boxes sway slightly, slightly more, then finally collapse. Immediately I cut to a distant shot of him splayed among boxes, and one box bounces off his head.

I also learned to use dissolves and fades tastefully. In the beginning, after the animals and rats enter the ark, Noah enters. Then the Ark on land slowly dissolves to an Ark tossed about on the waves, and fades to black. This sequence indicates a passage of time and is dramatic--there does not always have to be slapstick action in a scene to hold a viewer's interest. Likewise with the near-end--Noah sees the rainbow (in a cycle where the rainbow "twinkles"), the scene fades out, and the scene with the animals emerging from a grounded Ark fades in. The viewer thinks all is well and may almost forget the plight of the rats, which makes the last scene even funnier.

EDITING/ASSEMBLING THE FINAL MOVIE

Editing my movie taught me that development does not just occur in the animation/drawing stages. No matter how well one fleshes out a storyboard or how many times scenes are strung together in the computer, some problems may only show up when the movie is put on tape. Seeing it for the first time on video in rough shots scared me--I did not feel I had enough footage, and shots I thought worked well together suddenly did not. I learned that I did not always have to create more footage to solve problems. Cycling the beginnings and tails of shots can stretch scenes out, as

well as parallel cutting scenes I had meant to be together. I learned not to think linearly.

For example, I intended for the animal processional in the beginning to have just Noah stand alone by the Ark, then the animals enter. When I watched it on tape, I felt there was not enough time for the viewer to absorb the scenery or Noah's character. I really did not want to create more walking animals just to extend the scene, so I solved the problem by editing. I made an establishing shot with Noah and the Ark alone, taken from the beginning frames of the shot, and I cycled it for a few seconds. I then cut to a close up of Noah so viewers could see his "cute" whimsical face and flowing hair. I had Noah turn to face the viewers, turn back, and then I cut back to Noah and the Ark again. Finally, the animals enter the Ark, and then I cut to the rats sneaking aboard. In this case in particular, I also learned to slow the timing of the shots down in editing, not in creation. The animals originally moved too fast, so I transferred the scene from computer to video using a slower frame rate.

The sequences with Noah and the cat on his face, and the rat and turtle wrestling, are very notable examples of parallel cutting to stretch out the scenes. I culled the sequences from just two shots. I showed Noah running around with the cat on his face; cut to a turtle ambling towards a piece of bread whereupon a rat suddenly "appears" and snatches it; cut to Noah and the cat again; cut to the rat and turtle playing tug of war with the bread; cut back to Noah and the cat. Then I cut to the turtle losing his grip on the bread and tumbling backwards, with the rat happily munching on his prize. This way there is suspense for the viewer--how do these scenes relate to each other? When the turtle flies off and crashes into Noah's leg, the question is answered.

The "rat exodus" sequence is also parallel cut: Noah pelts the rats with a matzo ball; the matzo ball just bounces and the rats ignore him; Noah throws some more; the matzoballs punch holes in the ark and the rats flee; Noah is so mad he still

tosses matzo balls; the rats run, followed by water sprays from holes punched in the ark; Noah realizes what he has done and looks down; cut to water rising up around Noah's feet; the rats hop from floating boxes to a window; Noah runs through the water, trips and falls in; the rats leap out the window to the sea; finally, cut to an external shot of the Ark beginning to sink. The sequence allows for a more dramatic flooding and sinking of the Ark, mixed with shots of Noah's panicky reaction. This sequence also gives more drama to Noah's plight--he trips and falls into the water, but then I cut to the rats fleeing the ship and the Ark sinking. What happens to Noah? I finally cut to a soggy Noah emerging from the water inside the Ark just in time to see the rain stop and a rainbow appear.

Sound editing is not a field I am familiar with at all, so I relied heavily on the judgment and taste of Marc Labbate, my sound editor and mixer. After watching the final edit, he listened to the 2 klezmer songs I chose (referred to in the "Story and Research" section), and planned almost immediately what sections of the pieces would go with what scenes. "Negev" is a slow "Bolero"-like processional piece that works well for the opening scenes and the end scenes after Noah emerges from the water in the Ark and sees the rainbow. By contrast, "Dybbuk" is a fast tension-building piece with lots of scale runs and percussion--it lends itself to clapping or dancing. This piece would run from the instant the rat snatches the cookie from Noah's hand in the beginning of the movie to the fade out after Noah sees the rainbow. A part of "Dybbuk" would also start in abruptly after the harpoon snags the cookie from Noah's hand in the second to last scene; "Negev" would play right up until that moment, so the contrasts between the two pieces would make the whole sequence even more of a surprise to the viewer. This ending mix was Marc's idea, as was the choice of what sections of the music would be used in general. He also added little touches, such as thunder and rain, subtly mixing them into the tracks throughout the movie, even after everyone was inside the Ark. He timed the percussive parts of "Dybbuk" to crashes,

trips, and falls. He did not start "Negev" right at the beginning of the movie, like I had originally wanted. He allowed rain, then thunder, then the music during the opening credits, which really gives a meditative mood to the opening. I had my own ideas of how to time the music to the movie originally, but I feel having his perspective really helped my animation; the best way to see one's own movie is often through the eyes of someone who has never seen it before.

PROBLEMS ENCOUNTERED/LESSONS LEARNED

In the course of my thesis, I have learned that one cannot do everything, let alone everything well. I had a complex story with complex animation, and found myself very frustrated at times trying to execute the plans I had made for myself. My advice to animators is to keep to a very simple story; it also does not have to be original. The art and animation world will not think the animator is any less creative if every single aspect of the piece is not created from scratch by the animator. With a simple story (not too much running around, angled shots), one can focus more on elaborating on the animation within those shots. Likewise, if one has an elaborate or especially powerful story, one should simplify the drawings and "look." Layers of rendered textures may not be needed. I feel my piece is a moving painting--I could have executed far better animation and more sophisticated shots (such as 3/4 turns and perspectives), but because of the complexity of my character and scene designs, I frankly became exhausted trying to "move" them. Basically, one ought to pick an aspect of a movie and focus on it.

I have also found methods to improve and speed up my design process, as well as drawbacks; the majority of which I mentioned in the "Aesthetic" and "Technique" sections. I know never to throw away any graphic or any rough stage of animation; I

can always utilize it later or for emergencies (such as losing the most recent version). I also know that when making a movie, thoroughly research methods of output from computer to video (or film). It is very easy to become caught up in the creation process and not be concerned with output, but it can be a nightmare to find out one does not know how to use or fix the machinery required to transfer the work from computer to video (in my case, an Optical Disk Recorder). I had to budget my time accordingly, so if the machinery is down for repair or in use, there is always something else for me to work on. These situations are where friends and "technical support" comes in; Charles M. Wilson helped me a lot with hardware logistics, and with the Macromedia Director script I needed in order to transfer each frame of my animation to the Optical Disk Recorder.

Since thesis is a process that covers a long period of time, obviously software and techniques evolved during that time that would make my tasks a whole lot easier. Adobe AfterEffects, for example, is a compositor and effects processor that directly reads Photoshop Layers. Many of my effects, such as rain, could be calculated in a program like that, rather than be created by hand. Also, many batch renderers and file converters (as mentioned in "Techniques") exist now as software and shareware. Storage media change and improve over a short period of time--what was popular a few months ago could be laughable today or tomorrow.

I am confident that I gained valuable knowledge and skill regardless of how much technology has "improved" in a year and a half. When I come across something that seems foreign and complicated, like GIF animation on the Web, or digital compositing, I feel I know the roots behind it, and am able to tackle it quickly and without fear. Also, my particular technique is an asset in some of my jobs, and adds effects that differ from the typical "Dissolve, Boxy Squares" that one might find in strict animation packages. I use the Layers Technique in my still imagery, as it is a painter's dream to be able to switch foreground imagery and background, erase, and

tweak, without completely destroying the artwork. Finally, now I can animate any rat, any way, anywhere, doing anything.

APPENDIX A:

Original Thesis Proposal

**(includes original budget and timeline
and actual budget and timeline for comparison)**

**COMPUTER ANIMATION MASTER'S DEGREE
THESIS PROPOSAL:**

***Noah's Ark: The Untold Story*
an animated movie**

**Leah M. Bosworth
February 22, 1995**

Thesis Committee Members:

Professor Marla Schweppe (chair)

Professor Erik Timmerman

Professor Dave Dickinson

THESIS TREATMENT

I intend to create an animated movie loosely based on the tale of Noah's Ark and the Great Flood, but with a new dilemma. The focus of the story is Noah's struggle against an overabundance of rats, who sneak on board the ship, instead of a single pair representing their species. The rats constantly make mischief for Noah and the other animals on board, as well as devour more than their share of the food rations. Every attempt made by Noah to eat in peace is thwarted by the rats, until Noah reaches the breaking point. Using the one food item ignored by the rats as a weapon, he forces all the rats to flee the ship. Unfortunately, Noah sinks the ship in the process. He finally gets the chance to eat undisturbed, or so he thinks.

I wish to combine the advantages of realistic movement and lighting of 3-D models and backgrounds with the painterly "organic" qualities achieved by 2-D platforms and "real-world" media. I will create my backgrounds in ElectroGIG 3D-Go, a 3-D package, and "touch them up," if necessary, in Photoshop and Painter. My characters will be a combination of 3-D basic models and 2-D painterly textures. Any difficult walk cycles and movements(those which would be masochistic in 2-D) will be modeled out of simple primitives in StrataStudioPro or Infini-D. I have assembled a collection of fur, feather, cloth, and other organic textures to map onto my characters. For most close up and distant shots, I will make the characters strictly in 2-D, using Photoshop and Painter. The effects of Photoshop and Painter give very lush "pseudo-3D" characteristics. I will then take each frame of animation into Photoshop and embellish upon the textures and soften the harshness that often occurs with 3-D shapes and renderings by adding brush strokes and similar effects. Photoshop 3.0 has a layering capability, where I can have the background as a separate element, then place each frame of movement as a separate layer on top for continuity, just like cell animation. In essence, I will be creating a "direct-on-frame" organic animation.

I have been testing methods of blending composited characters into their backgrounds, so they stand out, yet look like they really belong in their surroundings. I have also been studying numerous sources on animals and animal movement, from Muybridge to "Trials of Life" nature shows. I am not concerned with hyper-realism, but I would like my characters' movements to be as fluid and as believable as I can make them.

THESIS BUDGET

	\$	IN KIND	ACTUAL (as of May 1996)
Research	\$1000.00	\$20.00	\$50.00
Storyboard	\$1500.00		\$ 5.00
3-D Character Modeling	\$4000.000		
2-D Character design	\$4000.00		6000.00**
3-D Animation	\$4500.000		1000.00**
3-D Background modeling	\$5000.00		2000.00**
Importing into other software	\$4000.00		6000.00**
Image Compositing	\$6000.00		20000.00**
Soundtrack composition	\$200.00		0*
Musicians	\$1500.00		0*
Soundtrack recording	\$200.00		500.00*
Hardware (VRAM, acceleration board)	\$4000.00	\$3500.00	\$ 1500.00**
Software	\$2500.00	\$2500.00	\$ 200.00**
Storage Media	\$400.00	\$300.00	\$ 300.00**
Optical Disk	\$300.00		
Videotapes	\$100.00		\$ 100.00**
Transfer--Mac to Video			\$ 2000.00**
Video Editing			\$ 4000.00**
TOTAL	\$ 39,200.00	\$6320.00	\$ 49,200.00

* No money was actually spent on soundtrack recording, so I am approximating money for the time for Marc Labbate's services.

** These are approximate figures based on time actually spent on these categories; the important note is what I actually spent the most time on as opposed to what I had projected for this movie.

PROPOSED THESIS TIMELINE

January 1995 Revise and work out storyboard. Create 3-D backgrounds in GIG 3D-Go. Test importing from UNIX TIFF format to Mac PICT files, and touching up images in Photoshop.

February Finish storyboard. Finish 3-D backgrounds.

March Official thesis start. Time out scenes. Begin character designs and motion tests. Create Animatic. Start character animating and compositing animations into backgrounds. Work on "simpler scenes," such as tight facial expression shots and scenes with single characters first as they may be easier than scenes with multiple animals.

April More complex scenes, such as cat tumbling into boxes, multiple rats scurrying about,. Noah tripping and falling. Start loading any finished scenes into Director. Run ODR single frame recording tests. Investigate efficient methods, perhaps a script, to trigger batch rendering of multiple scenes.

Always have more than one scene in progress so as not to get bogged down and overly obsessive with minor details. Obviously, this means, keep incredibly organized!!

May Show storyboard and any rough scenes on tape to composer. Discuss musical themes, # and types of instruments. (I play clarinet, so I may be involved in this). Search for musicians. Continue animating and compositing.

June-July Continue animating and compositing. Start recording to the ODR if it is accessible. (I am assuming it will not be available during the summer, to be safe.)

August Continue animating and compositing. Make rough tape for composer. Begin music composition and organizing musicians. Discuss possibility of editing movie to the score, which will obviously influence score composition.

September Touch up and finish all scenes. Record to the ODR.

October

Record music. Edit movie on S-VHS. Lay down score.

Target Thesis Screening Date: End of Fall Quarter, November 1995

I will allow all this time for any emergencies .

I will be doing most if not all of the animation and image editing at home.

ACTUAL THESIS TIMELINE:

My work went pretty much according to the timeline until June 1995. Though I did not need to devote time to searching for a composer and musicians, the animations I was working on proved more complex and time consuming than I thought. This matter was compounded by full-time (often 50 hour per week) jobs that I carried from June 1996 to the end of my thesis. That summer was not very productive, so I had to make up for lost time in the fall and winter. I moved my thesis movie completion date to May 1996.

September 1995 I made my first ODR tests and realized I needed to add additional scenes and lengthen existing ones.

October 1995 I began to create new scenes (noted in the storyboard, Appendix B). I extended many existing scenes, such as the animal processional into the Ark; all scenes with the rats fleeing the ship.

January 1996 I tested the timing for many animations, such as the such as the animal processional into the Ark, the rats entering the Ark, and the Ark sinking. I experimented on the ODR and video to achieve proper frame rate and get a feel for how to edit my scenes.

February 1996 I finished all animation and began editing.

March through April 1996 I spent the majority of this time editing, and assembling the movie. I had to go back to enhancing and creating some scenes occasionally (the side view of Noah throwing matzo balls and the close shot of Noah facing the viewer in the beginning were "last minute" shots). In mid-April, I added the opening and end credits and started working on sound with Marc.

In late April, I finished editing and Marc laid down the soundtrack.

May 21, 1996 "Ararat" shown in the Spring Quarter Screenings.

APPENDIX B:

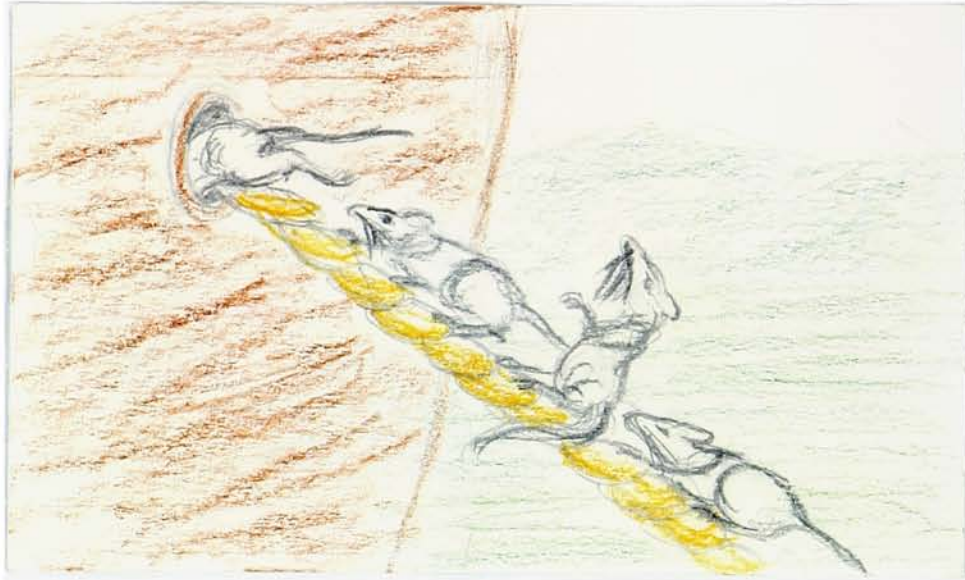
**Original Thesis Storyboard
with notes**

Animals enter the Ark,
Noah stands and observes.

(Not in original storyboard:
---Close shot of Noah's head,
Noah turns to screen and
turns back;
---Cut back to animals
entering Ark).



Rats sneak aboard Ark.



Noah enters Ark,
Ark door closes
behind him..



Dissolve to Ark tossing about in the waves of a stormy sea. Fadeout.

(Not in original storyboard:
--Fade in to interior of Ark,
Noah standing by window
holding a cookie.
--Cut to close shot of Noah
about to eat cookie.
A rat swings past on a rope
and snatches cookie
from Noah.
--Cut to shot of a sleeping cat.
Another rat suddenly pounces
on the cat and jumps off.
Stunned cat leaps up and
chases after rat..



Noah walking, cat and rat
run through his legs
and trip him.



Noah falls to ground,
turns head to follow
action of cat and rat.



Cat chases rat, rat
runs up wall, cat skids,
crashes into wall, is
knocked out.



Close shot--Noah
reaches down to pick
up cat.



Close shot of Noah's
head looking down--
rat flies down, lands
on head, jumps off.



(same shot)
 Immediately, cat
 leaps up and clings
 to Noah's face.
 Rat pokes out of
 rafters, taunting cat.
 Noah runs to and fro
 under control of cat who
 is trying to catch rat.



Cut--new shot.
 (Not in storyboard:
 ---Turtle slowly
 walking towards a
 piece of bread.. Stops,
 is about to take it,
 suddenly a rat leaps
 down and grabs it.)
 Rat and turtle play
 tug-of-war with bread.



Cut back to cat
 on Noah's face,
 runnning
 back and forth,
 pursuing rat.



Cut back to rat and turtle tug-of-war. Rat yanks bread harder, turtle tumbles backward. Rat eats in "victory."



Turtle crashes into Noah's leg.



Cut--immediately, Noah and cat fly through the air.



Follow cat tumbling,
it crashes into a pile
of boxes, sending
them flying.



Noah runs to catch
wayward boxes.



More distant shot,
showing Noah encumbered
by boxes balanced on
just about every limb



Close shot of Noah's foot. A rat walks up to it, leaps, and runs up Noah's leg



Close shot of Noah's head. Rat slowly walks up Noah's face. Noah's expression reflects his disgust at the action



(same shot.)
After a pause,
boxes shake, Noah looks
up, both he and boxes
fall down.



Distant shot--Noah
surrounded by boxes.
One box bounces off
head..



Close shot. Noah
lifts box off head,
revealing a rat
attached to his nose.



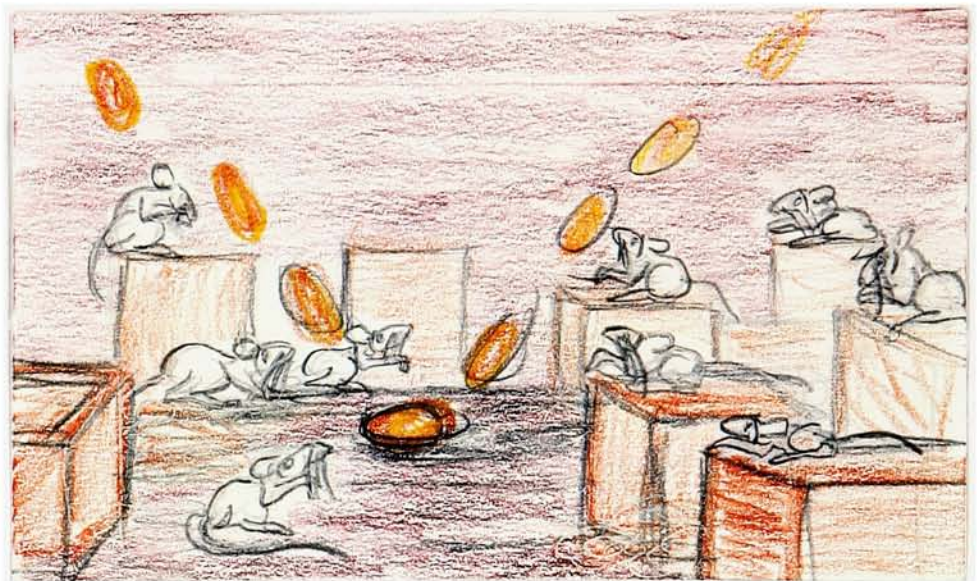
(same shot.)
Noah stares at rat,
turns visibly red,
rips rat off nose and
He pauses and
turns towards screen.



Noah's POV--
A can of Manny's Matzo
Balls!



Shot of rats moving about
strewn boxes. Suddenly,
a matzo ball bounces into
view. Rats look up, shrug
and continue their business.



Close shot of Noah
preparing to toss
a matzo ball.



Cut back to rats
in the box rubble.
More matzo balls pelt
the ground--this time
they break through the
floor,. Water shoots up,
and the rats flee.

(Not in storyboard:
--cut to a side view of
Noah tossing matzo balls)

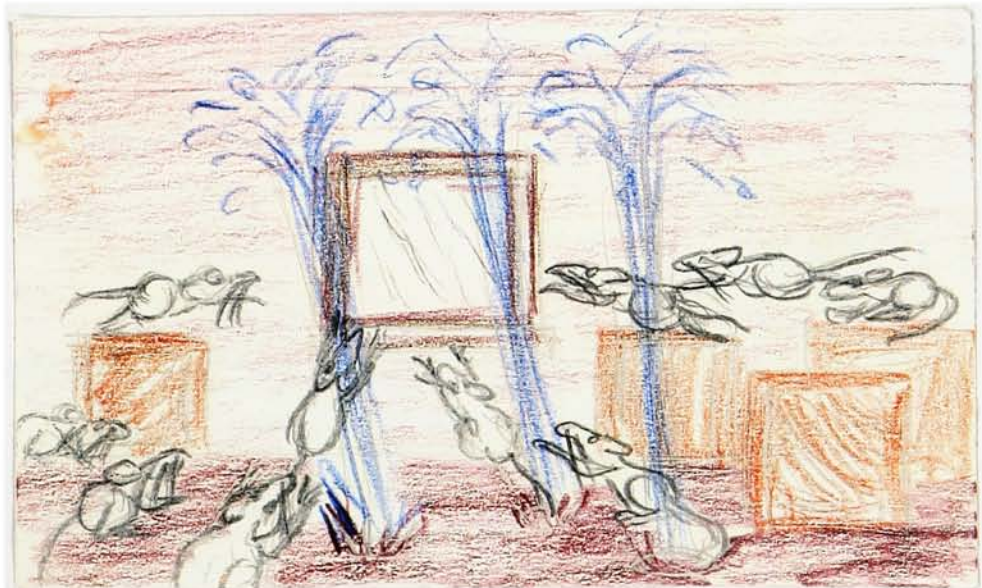


Close shot of rats running
in the wake of matzo ball
pelting; more holes are
punched through the floor
with water squirting out

(Not in storyboard:
---Close shot of Noah's
feet, water rises
indicating the Ark
is flooding;
---Close shot of Noah's
face, showing his upset
reaction.



Cut to rats running
toward window



Cut to rats leaping
off window, outside
Ark and into the sea



Cut to Noah running
through water

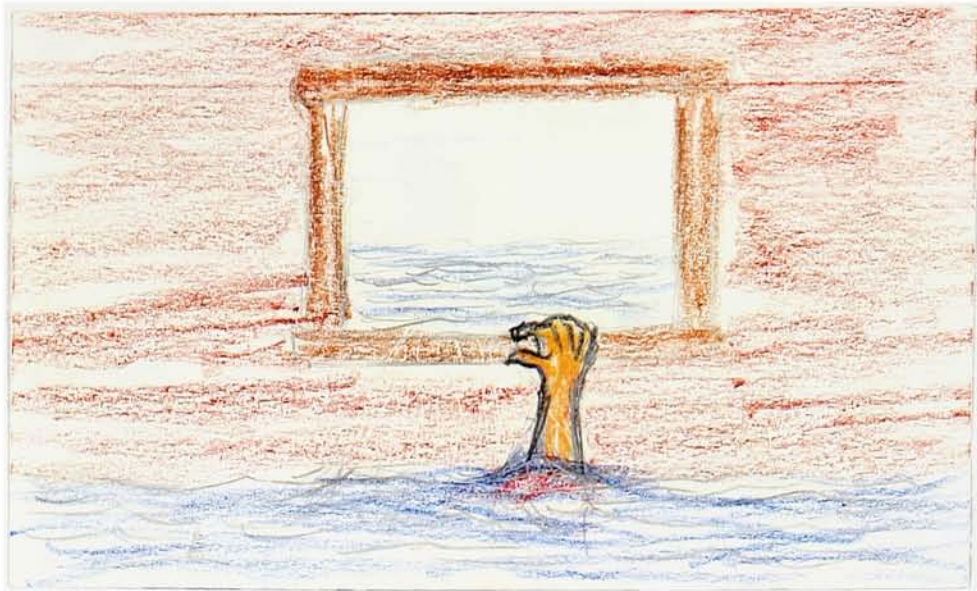


(same shot.)
Noah trips and
falls into the
water

(Not in storyboard;
---interior of Ark seems
to tilt
---cut to external shot
of Ark beginning to list)



Internal shot of window. Noah's hand reaches up to grab windowsill.



Close shot of Noah pulling himself up to the window. The sormy sky changes to a sunny one and a rainbow appears, surprising Noah. Fade out.

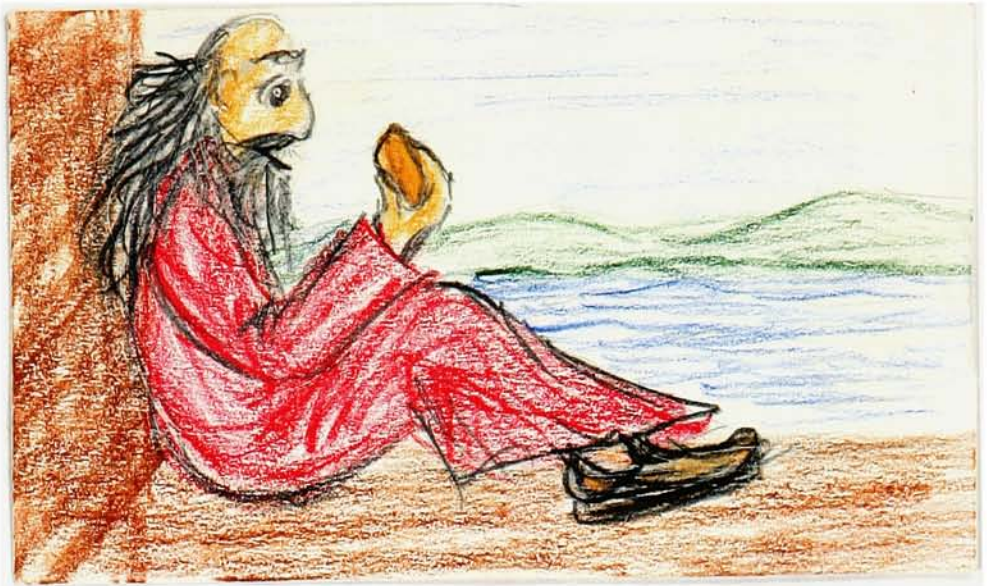


Fade in.
Exterior shot, Ark is settled on an island. Animals emerge.



Shot of Noah
sitting on Ark deck.,
reaching to eat a
cookie.

(In the movie, he is
with the cat and turtle.)



Close shot of Noah
about to eat.
Suddenly, a rope
snatches the cookie
from his hand. Noah
turns to look.

(in the movie, a
harpoon does the deed)



Noah's POV.
A rat submarine.



APPENDIX C:

Still images from "Ararat"

