INTIMATE CINEMA:
AVANT-GARDE FILM INFLUENCING A BIOGRAPHICAL STORY
OF DISCOVERY IN COMPUTER ANIMATION

A Thesis
Presented in Partial Fulfillment of the Requirements for
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This thesis gives an overview of the concepts and design processes for the making of the animation project “The Surgeon’s Son”. Using practice to support my inquiries into the theories of the avant-garde, this short experimental animation is intent on showing how these influences can be used in the creation of a short animation.

This thesis examines how critical theories in contemporary avant-garde and experimental filmmaking can be applied to the design process in computer animation. An analysis is conducted of related concepts in experimental filmmaking such as Jean Baudrillard’s discourse on simulation, and Jaques Derrida’s theories of deconstruction. These topics are then discussed through examples of films and art works that demonstrate these concepts.

During this research, a practice-based, discovery-led process was used to develop a visual interpretation of these ideas into a 3D computer animation. The topic was a book of memoirs written by a late relative, which presented an additional challenge of combining experimental techniques with historical facts and story structure. The conclusion discusses how the resulting animation reflects the interpretative process of bringing influential theoretical discourse, often considered outside the scope of current computer animation practice into the design process.
Dedicated to my brother, Timothy Hale, and my sister, Danielle Hale
I would like to recognize my parents Philip and Denise for believing in my abilities, helping me to make it through three long years of graduate school. I thank them for finding the time to support my endeavors whatever they were, I could not have done it without them. I would like to thank Alan Price for always lending a critical eye to not only the animation I was creating, but also the writing in this thesis. The discussions I had with Alan were very important in forming the conceptual basis for this animation, as well as the reason to continue this path of study. I wish to thank Alan for his ability to constantly push me to become a better student and researcher through his constant critique of my writing and visual art practice. I would like to thank Maria Palazzi for believing in my project and pushing me to think about ways in which I could make it better. The conversations I had with Maria helped me to better define how this story would progress through attention to structure and pacing. I would like to thank Amy Youngs for recommending that I attend graduate school through the Design program at Accad and for her advice on how this project would proceed. Through both my undergraduate and graduate studies, Amy has always been there with her upbeat personality and professional attitude, inspiring me to make meaningful artwork. I want to thank Nathan S. Hale for sharing his innermost memories and putting them down on paper for the world to see. His dedication to saving human life and philanthropy within his community is something that will be remembered for many years to
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1. INTRODUCTION

1.1 Introduction

This thesis will examine and explain how theoretical and artistic discourse from outside the common practices of computer animation can help to guide the creation of an animated project. Specifically, it will explore questions that arise from examining theories in avant-garde filmmaking and the use of animation in experimental works.

How does an animator use concepts from experimental and avant-garde filmmaking to adapt a story into a series of computer-animated vignettes? Since much of this document is inspired by techniques and concepts of the avant-garde, it is important to put it into context. A prominent film theorist, Fred Camper, indicates that the word ‘experimental’ might connote an experiment in film instead of a finished film project. He points out that an experiment in film differs from an experimental film because an experiment conducted in the medium of film may or may not be included in the final work. An experimental film, however, is viewed as a complete, self-contained artwork. This distinction is reinforced in Camper’s essay Naming, and Defining, Avant-Garde or Experimental. His definition states “It makes conscious use of the materials of cinema in a way that calls attention to the medium, and does not do so in scenes bracketed by others in a more realistic mode that would isolate the “experimental” scenes as dream or fantasy sequences.” (Camper). Another
important distinction Camper points to is his contention that experimental films are often “fraught with ambiguities, encourages multiple interpretations, and marshals paradoxical and contradictory techniques and subject-matter to create a work that requires the active participation of the viewer” (Ibid).

Some early experimental animation actively exploits the absence of the camera and focuses its efforts on using the filmstrip as its primary canvas. Painting directly on the frame, constructing new meanings from found footage, and even revealing to the viewer the filmmaking process as part of the presentation are some of the ways in which animators have approached the idea of experimentation.

Since quite a bit of writing exists about earlier animators using experimental techniques with celluloid based approaches, it seems that there is another set of possible outcomes that could exist within the fairly new method of creating computer based animation. The fact that computer animation is not confined to a filmstrip, manual illustration or found imagery, this newer medium could offer the artist even more possibilities for representation. An animator might use concepts from experimental and avant-garde filmmaking to explore the aesthetic possibilities of creating work within the virtual environment of the computer.

These possibilities become more apparent when considering the precedents set by the theoretical thinking of postmodernist philosophers and fine artists incorporating postmodernist thought. Postmodernism is often described as uncovering and deconstructing classical binary opposition, or the model which takes into account that two opposite perceptions form the basis for philosophical inquiry in western society. (Montouri, 1996, 226) This movement introduced a new ideology that is a significant departure from classical
modes of thinking. This paper will discuss the postmodern practice of deconstruction, the writing of Jean Baudrillard and Jacques Derrida, and a selection of contemporary new media artists as a method to explore the ways in which avant-garde filmmaking ideas may be translated to a biographical narrative using computer animation. These artists and theoreticians were selected because of their influence within postmodernism, and to inquire whether their insights will help me to formulate more interesting stylistic choices, alternative approaches to narrative structure, and new methods for visual representation to create a more personal and meaningful story in a short computer animated film.

This thesis investigates how these ideas can be adapted to narrative storytelling. The interest is not in creating an abstract experimental work but to blend a selection of biographical short stories with experimental techniques. This merging of concepts will hopefully yield an animation where this blend is apparent to the viewer representing a new way to work within computer animation. What outcomes will develop when the visual design and stylistic choices of the animation are influenced by artists using experimentation as a hallmark of their practice?

The subject of experimental animation is based on the memoirs of a distant relative of mine who grew up in Ohio in the early 1900s. The author, Nathan Scowden Hale, wrote these memoirs later in life when he had retired from being a surgeon and was looking for something to occupy his time formerly taken up by the commitment of his practice. The stories in this book are exciting and full of imaginative and inspirational wonder. Hale paid great attention to crafting short, personal stories based on his memories. A challenge then, is to adapt the emotional content into animation that could visually match the tone of the writing, while also incorporating the influences of experimental filmmaking and postmodern
theories for the discovery of what new outcomes may be produced as an alternative to the mainstream and conventional methods for creating biographical narrative.

Creating a visual experience that guides the viewer through the stories while also asking the viewer to question the nature of visual representation and narrative structure is an important part of this experiment. The conclusion of this thesis will reflect on the outcomes and the efforts made should hopefully help validate the case for incorporating influences of experimental filmmaking in the practice of creating computer animation. By examining Derrida’s position on postmodernist philosophy and the example set by three experimental animators who work within his ideas on deconstruction, I will blend these ideas with Baudrillard’s concepts regarding simulation and simulacra, and place these in context of another invention, Daguerre’s Diorama, to create an animation that is influenced by these ideas in tandem with the narrative that was chosen for the story.
2. BACKGROUND

2.1 About the Author- Nathan S. Hale

Written by Nathan Scowden Hale, Cut Boldly Down, Medicine, Life and Nature: A Surgeon’s Memoirs, highlights Nathan’s family life, military service, and philanthropic medical practice during early 20th century. Nathan’s mother and father worked during the period when modern medicine was developing, and this film will show a few experiences that instilled in him the desire to explore and discover his surroundings.

Born in 1917, Nathan was the son of Dessa and Kelly Hale, both professional practitioners of medicine. Growing up in Wilmington Ohio, Nathan personally experienced the consequences, procedures, and successes of their medical practice firsthand. Kelly was a philanthropic doctor in the region who had an intense interest in the arts and sciences. Often, he would load the family into their automobile for a road trip across the state, bringing his camera to record the events of the day. Nathan and his brother, Myron, had adventures in the countryside, hunting for fossils, and exploring their world, while experiencing the freedom of youth. The Hale hospital was opened in 1923 as Clinton County’s first hospital and remained open until 1964. Many of Nathan’s childhood experiences were intrinsically linked to this establishment.

As Nathan grew older, he took to biology and used his artistic skills to create detailed images of the specimens he examined. Continuing his interest in medicine, Nathan attended
St. Louis University where he completed his medical training. Serving as an intern in St. Louis, he worked tirelessly to master his craft while being constantly reminded of his duties as a medical doctor. He was drafted during the Second World War and served as a surgeon on the Pacific front. After the service, he returned to Wilmington Ohio to resume his practice and serve the community. Nathan started a family and continued his practice, even working as a medical practitioner at The Ohio State University.

When he retired, he realized that he had missed the fast paced life he lived as a surgeon. He began to find a new purpose: to catalogue his memories into short stories about his life. He took a writing class with his friend, John Baskin, and published a book complete with his stories and photographs taken by his father. These photographs gave context to life in that era. Nathan married a lady named Margery, and had three sons, Phillip, Frank and Jon. His memoirs are filled with stories that are funny, heartbreaking, and often times strange and eccentric.

2.2 The Story

Since I had been looking to tell a story in an unconventional method, I wanted to focus my efforts into a longer project that could be molded into an experience that would reflect some of my earlier explorations in experimental animation. These early explorations were more conceptual short animations that were not narrative in format. I bought a copy of the Nathan’s memoirs, and as I read it, I found the stories not only entertaining, but also quite descriptive. The book is important because it gave me an opportunity to explore my family lineage. Finding this book created a great opportunity for me to also explore
storytelling methods related to the concepts of medical practice and exploration, which were concepts I have not explored in previous projects.

I am interested in telling his early life stories of exploration and innermost personal thoughts. The primary objective of the work is to select a few of the memoirs that demonstrate discovery and exploration and find creative methods to communicate these stories. I am applying my own experiences of exploration to this short film. I wanted to give this story personal meaning by using several different storytelling, visual, and experiential devices. The aim of this animation is to interpret Nathan’s experiences by treating his memories as metaphors that demonstrate and help visualize his own imagination and intuition while he progresses through these encounters. Making experimentation and discovery visible through the perspective of an adult looking back on his adolescence will hopefully serve to inspire viewers to discover their own surroundings, remember their own formative activities, and also consider life in the early 20th century.

Several of the proposed design elements working together should give the viewer an understanding of how these issues that surrounded young Nathan shaped his life through small but important discoveries. By isolating a few central themes from this autobiography that describe smaller, personal explorations in the biography and transferring these into computer animation, I hope to discover a method to match the tone and subject matter of the biography to the visual effect and story arc of the animation. This approach will also consider the way artists graph history, deconstruct the visual and storytelling aspects of animation, and use the principles of simulation through a contextual review of other important filmmakers and artists.
2.3 The Influence of Post-Modernist Philosophers

Influential thinkers such as Jacques Derrida and Jean Baudrillard have written extensively about the philosophical tenets that challenge classical western philosophy and the notions of objective truths. The following sections are dedicated to two contemporary philosophical thinkers and how their ideas have shaped the ways in which I have looked at my own process as an animator. My intent in including the following section is to show how ideas spawned from literary critique can also be used for similar purposes for moving images.

2.3.1 Jacques Derrida

Derrida, (15 July 1930-8 October 2004) a prominent philosophical theorist, challenged the norms and assumptions of Western philosophical tradition and western culture as a whole. He coined the term for this challenge ‘deconstruction’. He often sought to undermine the paradoxes on which several classical texts of western philosophy had been based. He called these paradoxes ‘binary opposition’. The protagonist/antagonist model, the idea of the presence of something versus the absence of something, and even fantasy or reality, all serve to explain how western philosophy has viewed binary opposition.

One could express this relationship in terms of searching for the dichotomic elements in a series of moving images. Even in abstract works, an example might be an implied antagonist/protagonist relationship. Stephanie Dudek outlines the opinion that in literary deconstruction this sort of interaction is viewed as a one-to-one match between two elements: a signifier and what it signifies. A signifier is a sign that conveys meaning; the word. The signified is the thing or idea that the word represents. Many involved in semiotic
studies focus on the significance of communication, but the idea of a one-to-one match between elements is a characteristic of classical western philosophy.

Stephanie Dudek interprets the writing of Jacques Derrida by proposing how transgressive art, (art which seeks to unsettle or shock the viewer) is elevated through deconstruction practices. “Deconstruction is not only in keeping with the spirit of the 20th-century transgressive art, it attempts to transcend it by not aiming for the shock of the new. Its goal is to unsettle tradition, to root out orthodoxy, to take a position, and to affirm a new way of presenting reality.” (Montouri, 1996, 227).

Derrida’s theories are informative to the critical reading of films and animation reviewed in the following sections, which have been studied in order to help provide a framework for conceptualizing visual solutions to my animation project.

2.4 Experimental Filmmakers and Artists Combining Animation with Their Practice

The artists reviewed in this chapter embrace experimentation in their practice by breaking from classical methods of mainstream filmmaking. I have selected Paul Chan, Phil Solomon, and Lewis Klahr because of their experience as experimental filmmakers using animation, and often times their work is concerned with concepts that can be analyzed from the perspective of deconstruction. Isolating these artists comes from the understanding that they have broken from philosophical convention, and their work is recognized widely as representing contemporary practice in experimental film.
2.4.1 Paul Chan

Using light and animation, Chan creates work that deals with formal aspects of the film and animation medium. His animated sequences are an accrued, jumbled mass of objects that float up and down the walls and floor of the gallery in which it is installed. Instead of it appearing to be projected into the space, it becomes integral to the space in that the animation claims the totality of the empty space as its screen. The surrealism of these projections is reinforced by his considerations of the projection surface as well as how the light bounces off the surface onto adjoining facades. This deals with the concept of purpose on many different levels. Usually to view an animated piece one is inside a space and looking at a screen. But Chan uses the light to project a simulated window that mimics the act of looking outside. Chan’s 7 Lights could be described as using deconstruction in terms of his installation and how he treats the lighting and animation. The walls and floor cease to take on their original purpose. Across the floors and walls, the 7 Lights project challenges several notions that have usually been commonplace in animation. In most contemporary computer animated works, there is a clear definition between the background and foreground, up and down, and gravity and other understood physical phenomena. Through this practice, attributes that are usually expected in a live action film (gravity, light/dark, and other physical attributes) must be explicitly given shape in an animation. By deconstructing the methods typically used to represent reality in film and animation, Chan reorganizes not only the space represented in the animation, but the space in which it is projected as well.

Chan’s 7 Lights project serves to questions how we interpret and analyze the role of the animated film. By using deconstruction as a basis for understanding, Chan exposes binary opposition in an attempt to make it visual in a literal sense. Sometimes this work
consists of only the projected light, and other times the projection is bustling with objects which are hurtling through the space. Though some of the content he uses is identifiable, the viewer might find it difficult to differentiate between the specific forms in the imagery.

While considering aspects of Chan’s work that inspired me, the most prominent is how he can take everyday objects and find methods to abstract them. By using the techniques described here, Chan has transformed the meaning of objects through this abstraction, which became of interest to me during the production of my own animation.

Chan inspired my project by reorganizing the gallery space. By shifting how the viewer perceives this gallery space over time, he has effectively created an experience that suggests absence of natural phenomena. What I was most interested in emulating in my own animated film was this same feeling of absence of natural phenomena.

Figure 2.1: Still Image from “5th Light” installation, Courtesy of New Museum of Contemporary Art, New York City.
2.4.2 Phil Solomon

Using pre-built sets that were made for the video game *Grand Theft Auto: San Andreas*, Solomon underscores technology as the tool for creating *Rehearsals For Retirement* and *Last Days in a Lonely Place*. He creates new meaning from objects and locations he discovers within the game: a hidden place on the game map, or an unexpected event triggered by the game player’s actions. Solomon uses the programmatic glitches within the game to create imagery that would not normally be possible to create. (Horwatt, 2008)

His approach to making these works challenges the difference between video games and cinema by the use of common techniques of the cinematographer. His use of slow pans and locked down shots suggest a contemplative attitude in which the areas of the game board he chooses complement his story.

The implications in Solomon’s ‘machinima’ films lie in his treatment of the landscapes, and uncovering of the opposition between presence and absence. Both films feature an eerie interplay between the character and the environment. The exclusion of the figure in some shots, while giving the figure presence in others Solomon exhibits a resistance to the orthodox methods of narrative structure. He has created two works based in the world of a video game in which he uses the virtual landscape to tell the story. The dramatic camera movements, subtle camera pans, and clearing the scenes of extraneous digital characters subverts the original intention of the video game in order to accomplish the shots he was looking to create.

Michael Sicinski describes Solomon’s treatment of the figure in his earlier film works as “never entirely vanish(ing) into the primordial soup, but instead subjected to an oscillation between presence and absence, wherein his or her physical boundaries and the surrounding
space become intertwined: individual identity becoming an unstable isotope” (Sicinski, 2007, 32).

What I find the most interesting is how Solomon repurposed the video game to accomplish his visual and conceptual goals. His use of duration and contemplative sequences within these two short films show how these techniques can be used in experimental animation. I was inspired by his use of duration and contemplation in these animated works. These concepts used in my film would help to intensify the subject matter in a way that increases the personal quality of the memoirs which my animation is based.

2.4.3 Lewis Klahr

Pony Glass, one of Lewis Klahr's better known works, seeks to identify new connections and interpretation of comic book stories through a deconstructing and repurposing of pulp comic imagery. Klahr creates new meanings from the implied and original function of these selected images. His paper cutouts are rare images that were in print during the middle part of the 20th century. His animation sensibilities playfully push the boundaries of the practice by using a vocabulary that is not commonplace to mainstream productions. This vocabulary forces the viewer to contextualize the characters’ purpose by placing them into a disjunctive and often ephemeral setting. We see characters reveling against a backdrop of recognizable sets, only to be thrust into strange, abstract compositions that replace the original meaning with an abstract expressionist sensibility. He does all this by following a narrative that can best be described as a series of unexpected connections. Tom Gunning describes Klahr's work as “films that seem to follow a narrative so densely
interwoven with the visualization of each image that it defies complete comprehension.”
(Gunning, 1989, 4).

Throughout _Pony Glass_, imagery, text, sound, and movement are juxtaposed in order to reinforce the central themes. Text is introduced as speech bubbles that signify conversation, but to find meaning behind the dialogue would be a fruitless search. Using this device, Klahr is able to deconstruct the meaning of dialogue as traditionally presented in comic strips. Often times, this dialogue is crossed out to the same effect that Paul Chan’s uses in the titles of his _Lights_ projects. In a sense, Klahr is deconstructing the comic strip, and then deploying these images in a completely new context.

Klahr uses visual scale in a way that questions the perception of reality. In _Pony Glass_, we see two figures: a male lying horizontally, and a female, which is significantly smaller in size. These instances are most intriguing to me in that Klahr uses juxtapositions of the human figure and challenges the viewer to cope with these strange differences.

His ability to repurpose content from outside the practice of animation is similar to the technique Solomon uses in his work. I want to use this same idea to repurpose assets from my animation and use them in other scenes in different contexts.

Each artist reviewed above inspired my project in different ways. Their work succeeds in reorganizing space, giving new meaning to images through repurposing them, and creating contemplative, long duration sequences. These examples gave me a starting point for thinking about how I would approach the task of creating an animation. The combination of these ideas and techniques will be a major point of exploration in creating my thesis film.
2.4.4 Transformation of Simulation and Reality: Jean Baudrillard

The French philosopher, Jean Baudrillard (27 July 1929-6 March 2007) introduced the idea of simulation and reality as increasingly indistinct entities. His main contention is that the real and the virtual have begun to merge, leaving the individual to continually question what is real and what is a simulation. In *Ecstasy of Communication*, he writes about the proliferation of the television screen as the “most beautiful prototypical objects of this new era, the surrounding universe and our very bodies are becoming monitoring screens”. (McNeill, Feldman, 1998, 443). This transformation is much more apparent in 2010 than when he wrote this in 1987, due to the rapid pace of technological advancements. Baudrillard poses questions regarding the relationship between people and material objects in a technologically saturated society. What he describes as “hyperreality” is the notion that images do not signify any truth, yet operate as significant objects, blurring the relationship between simulation and reality.

Hyperreality affects how artists communicate through the medium of computer animation because the product is a simulation of natural phenomena, real or imagined events, and real or imagined objects. Since the assets in a computer animation project are created virtually, often simulate natural phenomena, and can represent real objects, Baudrillard’s idea of hyperreality is well suited to describe the condition of computer graphics. His theories describe a large shift in our relationship to virtual objects, or how we relate to objects that exist only as images. He argues that we do not have the same connection with virtual objects that we would with real objects, but increasingly, the virtual world is so intertwined with the real world that our acceptance of them as reality is
commonplace. So one signifier, or one virtual representation can contain multiple interpretations of what is signified.

This idea was beginning to take shape during the early 19th century in Europe. For a long time, artists had been making images that were representations of the natural world. But at the onset of the industrial revolution, the audience’s appetite for more sophisticated aesthetic experiences increased. To satiate this desire, artists began to devise ways to create new experiences through the use of new image making and image presentation processes. These developments ushered in a new way of presenting reality and represent the beginning of what Baudrillard describes as hyperreality.

A significant part of this investigation is to understand specifically how I was able to adapt these ideas into a visual display. This issue required an investigation into past methods of presentation in the arts to provide a basis for exploration of the notion of hyperreality. The similarities that I began to notice between early theatrical practices and Baudrillard’s philosophy became more apparent during the production of the animated film. A good starting point to investigate was by experimenting with the background sets.

2.5 The Diorama as Inspiration for the Project

The concept of a diorama came up by accident when viewing a specific sequence I was creating in the animation project. I found that it could be useful to incorporate this idea into the project to illustrate the kinds of things that Nathan Hale (the author of the biography) was interested in: he talks about his love of museums, collections and archives of the past. I saw a tremendous possibility in recreating his interests through the same specific visual techniques used to create visual displays in museums. The dioramas I had encountered
at the Ohio Historical Society museum became a reference for thinking about how I could create its virtual counterpart. These dioramas inspired me because they not only visually represented Ohio’s past, but also gave me cues as to how a museum diorama is constructed. I was also inspired by the way in which these installations transport the viewer to a specific period in Ohio’s past, which was a major theme of this animation. Though there are limitations to the diorama, it is an important leap in visualizing the past because it allows the viewer to imagine themselves as being a part of that specific time period, something that is difficult to replicate with painting, photography or sculpture alone.

2.5.1 Use of Dioramas in Contemporary Art Museums

The artists Tina and Bridget Marrin explored the use of dioramas as while creating artwork for an exhibition at the San Diego Museum of Contemporary Art. One particular work is comprised of a small-scale diorama that has mechanized elements contained within it. Reaching beyond the typical use of modern dioramas which are usually a still scene, their aim is to shrink motion and time through presenting a miniature scale world. By inviting the viewer to engage the diorama, they ask the viewer to deal with the obvious shift in scale from their current surroundings to those contained in the artwork. How does this create a dynamic experience for the viewer? When we perceive recognizable objects, does our perception of them change based solely on scale, or are there other factors involved such as their motion, arrangement, and scale relative to other familiar objects?

A research study done at the University of Tennessee found that “subjects asked to imagine themselves in miniature rooms experienced time in a way proportionate to the scale of the model.” (Kamps, Rugoff, 2000, 33). In this example, the compression of time that
takes place is a direct result of the spectator being instructed. Does adding the element of motion into a work of this nature significantly alter how time is perceived? The Marrins’ work uses a tiny flag and a lawn sprinkler in motion in order to accomplish this shift in time perception. These two recognizable objects, while still based in reality, have had their meaning transferred to signifiers used in a simulation. Since time and duration are an important part of the animation project I created, an investigation of how similar techniques used in specific sequences could shift viewer perception of time is of great interest to me.

2.5.2 Daguerre’s Dioramas

Louis-Jaques-Mande Daguerre (1787-1851), was an artist and scientist that understood the relevancy for new experiences. His inventions employed the most current techniques of the era, and were a combination of his knowledge of theatrical panoramic painting, set design, architecture, and the skillful manipulation of light. Daguerre’s diorama inspired me because of its power to inspire viewers through the use of an alternative to reality. The diorama was a primary consideration while crafting the visual elements that would support them theme of the short film I was creating. Daguerre’s work was such an inspiration because it represented not only artificiality, but also the beginning of moving images and the combination of multiple scientific and artistic disciplines. This new and exciting form of looking at the world was necessary to encourage the viewer to become more engaged with the subject through new experiences. Renzo Dubbini explains “Spectators felt that their capacity to perceive the world expanded when they looked at an image enlarged and brought to life by an optical device.”(Dubbini, 2002, 116)
The diorama had roots in theatre and photography (two art forms Dageurre had a great deal of experience with), and there are many components that set it apart from other forms of visual representation. When Daguerre built his first diorama, his aim was to animate scenery paying close consideration to theatrically representing natural phenomena. Much of Daguerre's research at the time was focused on understanding how lighting, mirrors and optics could work together to enhance the experience of this new spectacle. The diorama is still replicated today, but it is now often synonymous with a miniature replica instead of a large building with a platform and two stages. His approach to the diorama was to use it in a theatrical setting, where the combination of scrims and miniature objects came to life through shifts in illumination. The illusion of proper scale was accomplished through his understanding of how the brain organizes and perceives space. He used this knowledge to create a natural sense of depth.

In Daguerre’s diorama performances, his intention was to give the viewer the feeling of passage of time. Time passed not by the use of a series of successive images, but instead as one image composed of many scrims moving horizontally. Daguerre had not created the motion picture, but instead used motion in tandem with the still illustrative image.

This new kind of spectatorship quickly became popular, and with technology including photography and projection becoming more sophisticated, the Diorama would set a precedent for this type of viewing arrangement. Of course there were limitations to the Diorama, but it is an important leap in entertainment because it allowed the audience to seek new and exciting experiences that could not be duplicated with painting or sculpture.

By creating a virtual diorama, I hope to engage the viewer through an examination of how it affects their interpretation of the story. In early dioramas “representation was by a
particular condition of perception, that is, by an attenuated or heightened brilliance of the
colors, by vibration in the forms, and by the illusory metamorphoses that were the true
nature of the images” (Dubbini, 202, 118). In the case of an animated project, image
representation has the same condition of perception; colors can be brightened through
lighting and surface shading, and an endless amount of possibilities can serve to heighten
the nature of the image.
3. SYNTHESES

3.1 From Concept to Production: Synthesis of Related Topics into an Animation Project

I have included this chapter to describe how a synthesis of the background research and information was combined with the biographical stories. My thoughts about avant-garde filmmaking, postmodern philosophy, and creating virtual dioramas to represent the memories of the biographer, Nathan S. Hale, are discussed in this chapter. These influences resulted in a methodology that blends these ideas with the personal stories of the biographer.

3.2 The Diorama and Museum Artifact as Design Element

The use of a background or matte painting helps to suggest an expanse of land or scenery behind the primary museum display. These flat background paintings are common in dioramas. Through some creative devices, I wanted to allow the viewer recognize the set as artificial in the world of the animation, much like in a museum diorama. The use of correct scale is another important characteristic that will be considered when creating this animation. Since scale is relative, certain techniques will be used to uncover the set as artificial or false by showing the set in its entirety.
These ideas together could help to define how a virtual diorama could be constructed. My intention was to first present the scenery to the viewer as a typical film set by not uncovering its underlying structure, and then uncover the set through cinematography, set design, and animation techniques. This revealing of the constructed set would hopefully work to uncover two different concepts. The first is to show the audience that at its very core, the art of animation is similar to studio filmmaking in that the sets are built around where the camera will be shooting. This technique would uncover both the structure of the sets as well as remind the viewer that what they are seeing is in fact simulation. The second concept I wanted to deal with in making a virtual diorama sequence was to see if this shift in scale also caused a shift in time perception. I designed a scene in which the trilobite was not yet a fossil, but instead a living creature roaming the prehistoric earth. Using two dimensional matte paintings and renders of trees mapped to flat image planes was to be a prominent technique in achieving the look of this particular set. The ground geometry in the Devonian Period sequence was the same model that was used in the trilobite interstice. So, when pulling the camera back far enough to uncover all these elements and exposing their true attributes, my intention was not only to show a shift in scale from large to miniature, but also change the way the viewer thinks about the construction of a virtual animation set. This challenge was then up to the viewer to consider how and why the filmmaker would show the set as an artificial construction.

I was beginning to see that by allowing the viewer to first see the virtual set interpreted as a real space, explore it, and then be confronted with its artificiality, drastically changes its perception of whether the scene represents fact or fiction. Using the camera to explore the virtual sets, which are similar to artificially constructed film sets, could facilitate
the deconstruction of the sequence by showing the qualities that make it inherently artificial. The intimate, discovery driven nature of these vignettes were created in order to use concepts related to the diorama and its deconstruction. Giving the viewer the chance to question the authenticity or artificiality of the visual spaces and events reinforces the possibilities of creating more complex meaning by offering a dynamic alternative to current cultural representations of the cinematic narrative. A common practice in computer animation for film is to arrange the visual space in order to hide the construction of the set. By deconstructing the set and offering these visual aspects to the viewer, I am referencing Nathan’s curious interest in the artificial reconstruction of the past through his collections and love of museum displays.

3.3 Interpreting Memories: Artifacts as Visual Containers

While designing this project, I began to understand how some of the choices I made are a result of the memoirs that I have read in the autobiography. While translating a selection of the memoirs, I would imagine how Nathan might have interpreted events and experiences he did not yet understand as a child. His imagination is then channeled through an expressive interpretation, and visualized through animation.

As I began to create the assets and scenes in the computer, I was influenced by the experiences Nathan describes. Nathan’s personal qualities informed the creation of the film, even if this is not explicit in the animation. One such story describes his restoration of a deceased family pet: as a young boy Nathan wired the bones of ‘the old buck sheep’ back together after it died over the winter. In this action he asked himself why he was interested in such an uncommon practice. His love of museums and their ability to reconstruct habitats
and specimens from a distant past reinforces the visual design element of simulation in the animation. This interest in artificial reconstruction is directly referenced in the animation. Relating his stories to my modeling process, and defining the look of the surfaces, became important frameworks for realizing the appropriate feel of the surroundings.

Since Nathan wrote these memoirs later in his life, his writing process involved recalling past events and ideas. After reading the book, I began to focus on one artifact appearing in a story from his youth that I found to be particularly peculiar: a glass jar full of surgically removed tonsils. As I examined the story, I realized Nathan’s father had a propensity for collecting odd things. This tonsil collection was accumulated from summer rituals performed by the local doctors where all the children of the town had their tonsils removed to prevent a possibly lethal infection. Thinking about the tonsil jar, and how the children’s memories of this activity were probably traumatic and unforgettable (the children were old enough to remember this experience), I realized the memories of that time and this container and its contents were intrinsically linked. I began to realize how I could use the objects as artifacts described in the book as a trigger for one of the stories representing it.

As I discovered Nathan’s ability to recall many different objects and their significance to his life, it became more apparent how a visual story could be interpreted through the objects themselves. There were two stories in this sense: the story of discovering the object and the significance to its owner, and the true and imagined historical events surrounding the object. Encapsulating these ideas allowed me to think about each vignette from the standpoint first of Nathan finding the object while engaged in play, and then actually giving the story behind the object and its existence.
3.4 Artifacts as Storytelling Devices

Though there were several objects that Nathan mentions in the memoir that I did not use in the short film: trinkets, inventions, turkey bones that Nathan’s grandfather used as a turkey call that sat in an old glass, as well as a host of early medical instrumentation. The artifacts that were chosen were best suited to shape the story based on the experience of discovering new things that Nathan describes. The basement of the hospital housed all of these objects, and functions as the starting place for exploration in the story. I decided to use four artifacts that had the most possibilities for visual interpretation. These artifacts were: the jar of tonsils, the trilobite, the old scalpel, and finally the sheepskin diploma. Using these four objects, I attempted to build a short story based on each individual artifact while also tying them together into one narrative.

Each artifact guided how the story would progress, and through storytelling devices that were informed by background research, the full story would be assembled from each artifact driven vignette.

3.5 The Influence of Avant-Garde Film Making in Animation

While formulating how this thesis animation would take shape, I became interested in some filmmakers that were categorized as avant-garde. One film, James Benning’s Landscape Suicide, gave me some ideas about the use of landscape in contemporary avant-garde filmmaking. In this film, the disparity between the beautiful landscapes and the gruesome, murderous acts that took place among these landscapes is juxtaposed through long durational studies of the landscapes. Norman McLaren was another avant-grade filmmaker whose work I was looking at during this review. Looking at his film Pas De Deux.
I was enthralled by the techniques he was using to mix the techniques of animation with those of montage and live-action filmmaking. Viewing McLaren’s *Pas De Deux*, Godard’s *Allemande Annee 90 Neuf Zero*, and Solomon’s *Walking Distance* in a film class devoted to contemporary avant-garde film, I began to isolate qualities that were interesting possibilities for exploration. Many of these films had long durations, and often little to no story line, but the story was replaced by a contemplative urgency that required more from the viewer in terms of participation and introspection. The avant-garde films from the 1920’s to the 1950’s had given rise to postmodern techniques that were also influenced by critical thinkers in the field of literature, philosophy and film criticism.

As I read about and watched some of the techniques that modern avant-garde filmmakers were employing, the idea of contemplation surfaced. Often locked down camera work was accompanied by sequences of long duration. This creates a contemplative feeling in the viewer; we are forced to reckon with the filmmakers intent of making the viewer more aware of the structure of a scene and the implications of how film reproduces time and space. It makes us search harder for meaning, and its meanings can often be elusive upon an initial viewing.

In films such as James Benning’s *Landscape Suicide*, and Ernie Gehr’s *Eureka*, the landscape is the primary storytelling device. Long durational shots look over these landscapes, which dislodge common structures of narrative plot and give the viewer time to imagine historical events that took place in these spaces. I wanted to treat the landscape in a similar method using animation. Using geometric models from previous scenes and re-purposing them, a representation of landscape became a strategy to accomplish this idea.
3.6 Translating a Memoir into Narrative Animation

In order to blend the ideas from the avant-garde with my vision for this project, I found it helpful to think about some of the qualities that I wanted to explore while I began to create some of the assets digitally. I wanted some of the assets to appear dusty and well worn, keeping with the stories from his youth. By studying the stories and images in the book, I was able to better imagine life in the 1930's. Consulting with my adviser helped me to isolate some possible routes to organize and develop the stories into something that closely matched my vision.

One course that was established early was to locate stories that I felt had not only historical significance, but also reflected some of my own personal interests: the exploration of nature and collection of historical artifacts. The basis for this animation, based on the review of works from avant-garde filmmakers, became to visually describe some of the experiences Nathan recalled which might seem strange to most viewers. Nathan's propensity for collecting artifacts, exploring, and embarking on trips across the Ohio countryside presented unusual and interesting stories in which I found great appeal.

An early consideration in creating this animation was to determine how the story would progress. Though I did not have a clear picture of all the elements, I was beginning to question how they would be organized in a broad sense. How do the memoirs inform the process of translation into an animated work? Obviously it would be almost impossible to know exactly what Nathan was thinking when he wrote these short stories, therefore a certain level of investigation and imagination would be necessary to adapt them into the type of experience I had in mind. By thoroughly reviewing the memoir, I was able to think more about life in the 1930s. These thoughts were important for me to visualize the properties of
the sets, objects, and narration. Since I was the only one responsible for the production and it was to be completed in two years helped me to look at this project through a creative lens. Solutions to these questions became necessary for me to further contemplate how I would approach the creation of the narrative voice-over. From which era would Nathan be describing these events, as a child or as an experienced surgeon? Initially this was a struggle because I wanted to present these stories as if they were recent memories about his childhood imagination, but the memoirs were written late in Nathan’s life. I decided to meet in the middle and began at a point in his life where he would have just begun to tell these stories.

The search for a way to isolate a few key moments from an expansive and disparate amount of stories required locating a common thread within the memoir while thinking about how to build these scenes with the computer. While I was searching for new stories to tell, I began to construct a few digital assets for the beginning of the project: the basement scene and the tonsil jar. But there were still some unresolved issues I faced regarding the rest of the story and how it would unfold on the screen. I began to realize that exploration was an important formative aspect of Nathan’s childhood development. Exploration became the central element of the story, and all elements that were put in place after this realization were created with this theme in mind. For the written account to be adapted to the screen, it had to contain not only the above stated qualities, but also to fit together in a coherent manner. Therefore it was necessary to creatively interpret this story with regard to presenting an accurate depiction of the events and their placement in history.

A technique that surfaced after thinking about how I could adapt this memoir and remain in scope was to take a very short excerpt from the book; one or two sentences, and
design a whole sequence around the essence of this short passage. This simplification helped to me focus on one element in the story that could be creatively interpreted and enabled me to imagine other story elements that were congruent. From here I was able to expand upon the idea by imagining different scenarios that could have played out in the imagination of the author. Then combining these short excerpts from different sections would play out as a continuous sequence. Finding stories that were similar in nature, and then reassembling them, new combinations are achieved. Each story is able to stand on its own because of how I approached the story structure. Making these stories interchangeable helps to reinforce the way that Nathan organized them in his memoirs; they are not necessarily chronological. In this same sense, I wanted these stories to be non-chronological vignettes which could possibly be reorganized into different configurations.

3.7 Multiple Vignettes in One Story

While working through the story outline, I realized that the story could take place in a multitude of different time periods. After deciding to use objects as containers for the memories that recall the stories, I began to imagine how each interlude would play its part in a series of non-chronological vignettes, in which a reassembly of these stories would be the next task. Placing scenes that exist almost independently of each other on a single timeline creates the need to reorganize them. This organization is applied to the individual vignettes, as a structure for the whole story. A common theme began to surface: introduction of the hospital basement as a space that contains all of the artifacts that exist within the story. With constant shifts between chronological periods, the progression of the story became
focused on this theme in every scene. Segmenting each scene was born from the idea that all the objects in the scenes are containers.

In my early thoughts on structuring the animation, I wanted to tell the stories from the viewpoint of the young doctor looking back on his formative childhood experiences. In the first segment Nathan is exploring the basement of the family hospital. As he explores, he discovers the first artifact, the large jar of tonsils his father collected during the annual summer mass operation. Within this artifact is a story that is based in reality, but abstracted through its visual treatment. The objects are unexpectedly repurposed as signifiers of an event in time; slowly falling in line just as the children would have done prior to their operation. We then return to the basement, where we are taken to a table with a few medical instruments, glass bottles, a fossil and an old scalpel.

The fossil is yet another object that takes the viewer to an imagined landscape that exists only in the interstice between the basement and the following scene. After this interstice, the story of this fossil unfolds revealing a sequence from Nathan’s imagination that takes us back 500 million years. While we hear the narration explain his ruminations about this object, this short sequence shows the trilobite in its natural habitat moving over the landscape, describes a possible reason for extinction, and then visually and temporally compresses the process of fossilization by quickly simulating how layers of sediment would be deposited over the trilobite during several million years. The viewer then returns to the basement to find a rusty scalpel, which Nathan then takes with him into the forest for an exploratory trip. This object is not only the catalyst for the story, but also plays an important role in the story itself. As Nathan goes into the forest to explore, he discovers a snake, which appears to have died. He notices two large bulges in this snake and uses the scalpel to cut the
snake open to make a diagnosis. From this point, we return back to the basement to witness not an object containing a story, but this time an event: mold growing up a wall that metaphorically represents the sentiments of Nathan’s father regarding the plight of appendicitis during this era. Since antibiotics had not been discovered at this point, Nathan’s father this time explains why appendicitis was so common by explaining how he believed that “Appendicitis is God’s way for a surgeon to make a living while other types of surgery were being developed.” (Hale, 2001, 70). The final scene takes place in the living space that Nathan occupied while he was obtaining his degree in medicine, where we see the diploma hanging on the wall, as well as pictures from Nathan’s youth that contain not only the photographic images, but also have elements of animation contained within them. The departure from the idea of objects encapsulating stories might seem to take place during the examination of the diploma hanging on the wall, but in fact the end serves as a beginning to a new story. In this case, there is no particular story attached to the diploma, but instead, the experiences that took place throughout the entirety of the animation culminate in Nathan receiving this degree. Therefore this artifact serves to recapitulate the stories, while also serving to recognize that as a result of Nathan’s training as a medical doctor, there would be more experiences in the future that could be stored in this artifact in the same way that the other artifacts contained stories within them.

The story structure takes a compartmentalized approach, where each vignette has its own timeline, while story cohesion is maintained. Thus, the structure of the story progresses much like a series of diorama installations, while imploring the viewer to question the authenticity or artificiality of the visual spaces and events. This reinforces the possibility of creating more complex meaning. A common practice in computer animation for film is to
arrange the visual space in order to hide the construction of the set. By deconstructing the set and offering these visual aspects to the viewer, I am referencing Nathan’s curious interest in the artificial reconstruction of the past.

Using the interstice between the discovery of the object and the story in an expressionistic manner allows me to uncover and make visible the material makeup of both the object and the image making process. Through each artifact discovered, we are placed in another time in the world of the animation.
4. PROJECT DOCUMENTATION

4.1 Structure and Content: An Overview

The isolation of the elements that are outlined in the previous chapters, the use of individual objects as a storytelling device, the use of vignettes, and the diorama are concepts that helped to form the direction of the story. Using these ideas I adapted the memoirs to a non-chronological series of related animated sequences. The content is approached by a consideration of how these elements work in a linear, yet non-chronological narrative, yet also are independent of each other, that is, one story is not reliant on the preceding one for context.

4.2 Narration Adaptation

During the production of the animation project, I constantly had to revisit the method in which I planned to deal with the voice over component. While creating the digital assets, I began to write a script that best reflected what was happening on screen. This process is best described as elastic, with my interpretation and translation of the writing informing the creation of the animation and vice versa. When I really wanted to include a sequence in the animation, I would search for some writing in the memoir that would complement it. It was never my intention to copy Nathan's writing verbatim for the screenplay, but instead to approximate it in order to fit my vision for the animated sequences.
At the outset of the project I was not sure how I would be able to communicate the actual thoughts, memories and imaginative ideas of the stories. Initially, I did not plan on using a voice-over narrative, but over time I realized that a voice-over would be the most effective means of conveying the concepts in conjunction with the visual components. This became an important aspect of the production because it gave context to what is shown on screen. After isolating the story elements I wanted to feature, I began to search for relevant writings from the book that could be adopted. This planning process took place throughout the production of the animation, and underwent several revisions.

My preliminary voice over script was almost completely based off the writing from the memoirs. As I continued to revise the script, however, it became necessary to begin to tailor the script to the scenes that I was creating.

The voice-over needed to sound as if Nathan was treating these stories as if they were fond memories. The pacing of the dialogue would be matched to the visual components, but there were also important parts of the dialogue that gave context to the story. Therefore I had to strike a balance between dialogue pacing, while also considering that I would need silent parts. This consideration forced me to cut out much of the dialogue, instead opting for the most important parts to remain.

As I put the track over my rough animation cut, it sounded too rushed, as if he was hurrying to get through the lines. Emphasis placed on key elements would help to strengthen certain concepts. After a first pass, I took the voice over and incorporated it into my rough animatic. After reviewing it again with my adviser, we realized it was once again too fast. We discussed how the tempo should be closer to that of friend telling a story to another longtime friend. I tried to find qualities that would best fit this description, and I
communicated these to my voice actor. We went back to the studio to record a third voice-over. This time, I coached him for about 20 minutes, explaining exactly what qualities were necessary to heighten the experience of the animation. When his inflection or emphasis was not what I had imagined, we recorded another take. When I incorporated this soundtrack into my current project, I finally succeeded in getting the actor to capture the qualities I was seeking.

4.3 Early Animation Tests

In the beginning, three unique stories sparked my interest: the tonsil jar, a snake being examined and dissected, and medical practice before antibiotics. The origination of these sequences came from Nathan’s curiosity of the strange artifacts that were a product of his father’s medical practice. This wealth of strange objects inspired me to begin to create some of these objects by paying attention to how they might function when they were fully realized as part of a more refined story. I began to create the tonsil jar and started to layout the geometry for the basement interior. Simultaneously, I began to experiment with compositing live video and computer graphics. Though some of the experimentation would not find its way into this specific project, the lesson learned from these activities would help better define the scenes that would eventually be included. The first two assets I began to create helped to determine a starting point from which to evolve the story elements. A great deal of this story takes place in the outdoors and deals with the virtual landscape. Therefore it was also important to learn how to compose exterior shots and find a specific set of tools and learn them in order to fill a virtual scene with plants and trees. This became another intensive investigation into how to proceed with the animation using unfamiliar toolsets.
As I continued to model parts to add to the basement interior, the interplay between these objects became a consideration. The scale had to be adjusted as well as the placement of the props. Camera movement was also a concern. In this early test, the viewer was to discover the object after descending a staircase and moving closer to it. During this process,
it was important to constantly check the motion through playblasts. This technique offers an intuitive method for finding jerky or unwanted camera movement.

Figure 4.2 Early Rendering of Tonsil Jar

4.4 Effects, Lighting and Rendering the First Test
Using the paint effects tools in Maya 2008, I began to craft a metaphorical visual effect to explain the time just before the discovery of antibiotics. I was intrigued by the idea of mold growth, if not only to make the basement look more dark and damp. Laying out curves that snapped to the wall geometry created a to get the mold to creep up the wall slowly.

After modeling a few tables and other medical objects, I began to light the scene. I also began to create procedural shaders for the brick wall, the wood support beams for the ceiling, and the tables. The camera motion was designed to feel hand held; first setting the primary movement of the camera through keyframes, then adding overlapping motion through the graph editor. Constant critique of the qualities I sought combined with those that mimicked film conventions became a point of reference to refine the animation.

4.5 The Animatic

By working through each scene and capturing the movement and staging through Maya’s playblast previews, an animatic helped to show how the timing of the animation would work. Using this technique the animator is able to make judgments about camera movement, staging of objects and characters, and timing of how the scenes work together as a whole. It was also useful to gradually add fully rendered scenes to the animatic to establish what shots were finished, and which needed more work.

This technique of working at low image resolutions and shorter rendering times helps the animator plan sequences and gives context to the story as a whole instead of looking at it as constituent parts. An animatic can begin as a series of still images, and as the assets are built digitally, the images are replaced with animated sequences. Therefore, as new
scenes were imagined they would be fit into the animatic to examine their effectiveness within the story. One of the great things about the process of creating a rough animatic is that it offers the flexibility of the director to quickly make decisions about the placement of scenes in the timeline: as scenes are added or improved upon, they can easily be dropped into the timeline to see how they function in relation to the other sequences. Another huge possibility that gives this type of pre-visualization such an important role is the fact that it allows for quick experimentation. The ideas presented in the background and introduction of this paper helped to reinforce some ideas that came from observing and critiquing an early animatic. Connecting Nathan’s love for museums to an experimental museum diorama was inspired by looking at an early animatic where the treatment of the object, landscape, and set could be deconstructed. The trilobite ‘Devonian period’ sequence was originally not planned to show the virtual set, but while watching the animatic the known fact that we work with virtual sets and props was uncovered and then conceived as an animated, virtual diorama. This became a valuable way to connect the story to ideas I had about experimentation and avant-garde cinema.

4.6 The Tonsil Jar Scene

Since some of the assets in this scene were already in production it was easier to refine them and begin to research new techniques to increase the realism of the interiors and artifacts. I was beginning to learn more sophisticated modeling, lighting, and surfacing practices, but was still having trouble determining the best way to portray some elements, such as camera movement and object placement.

As I was building the basement scene, I was looking at photographic references of the old Hale hospital that was included in the memoirs. I realized that a basement possessed
the qualities I sought to contain the odd collection of artifacts that would guide the narrative. The basement then became the container of all the other artifacts, and this idea led to thinking about the story as a non-chronological series of vignettes. It was often necessary to change some of the visual attributes depending on how they looked in the scene. Placing the windows higher on the walls helped establish the scene as a subterranean interior. After asking a colleague about how to make the shot feel more like a basement, he suggested that grass peeking through the window might help cue the viewer to realize they were in a basement. Modeling the staircase was an early choice, so I decided to include it in the final sequence to help in creating this underground quality. I wanted the windows to have an ornate quality, so when modeling them I looked at some references from the early 20th century. Since these assets would not be involved in close-up shots, but instead meant to help establish the interior, the modeling and surfacing were a quick effort. It took a long time and was a difficult task to tweak the lighting to make it appear as if detailed shadows and light fog were a result of the sun’s illumination through the window. After almost eight iterations of going back to change the lighting scheme, I settled on one that subtly cast illumination on the props in the scene.

Lighting the interior set was a difficult task; many of my solutions did not achieve the effect that would help support the theme of the story. A solution was to approach this problem by painting areas of light where I intended the viewer to focus. Though there was only one other interior shot, this process helped me to visualize a lighting scheme that became complex by combining simple techniques. Each artifact became noticeable as a story container by paying attention to how the lighting illuminated it. The lighting approach was then broken down into effect lighting (shadows and light fog), object key and fill, and
general interior illumination, each of which had an effect on the others. It became necessary to isolate the lights to have more control of the compositing process, which was a major determination for rendering the sequence correctly. Since this set was an establishing scene and staging area for the whole short film, I spent more time developing it.

Figure 4.3 Final Tonsil Jar Render

4.7 Trilobite Sequence

This sequence stemmed from the rich imagination and exploratory curiosity that Nathan possessed during his youth. As a youth, he and his brother, Myron, would set out to
find fossils in the exposed stratification of earth in northern Ohio. In this story I found many possible outlets to explore the methods in which I could experiment with the animated sequences because of the vast amount of interpretations that are inherent in imagining how Nathan’s imagination might have treated the life and demise of the trilobite. Some early ideas looked to incorporate the idea of the diorama, the notion of hyperreality, and the concept of interstitial sequences that have abstract sculptural qualities. The interstitial moments serve to represent my imagination of what Nathan might have imagined while he was thinking about the history of one of the artifacts he comes into contact with.

Figure 4.4 The Trilobite Interstice Image
These ideas all stemmed from the trilobite object, which was used as a basis for experimental exploration within the short film.

The sequences in this vignette are concerned with visually explaining a young explorer's imagination. The sculptural qualities of the trilobite model I created led me to think about how I could use it in a way that abstracted the form. I wanted to create a sequence which could connect the basement scene to the Devonian trilobite sequence.

As the trilobite sequence continues, this interstitial object morphs into the landscape full of trilobites in their natural habitat. As the narration continues, we see the trilobites moving along the ground, and as the camera pulls back, we see the components of the set. This is where I begin to present the visual elements in hopes that the viewer can quickly distinguish between the two-dimensional elements and the three-dimensional elements. My intention was to create a virtual diorama that uncovers and reinforces the fact that what we are viewing is a virtual set. This is an important part of this project: to reinforce the feeling of artificiality of the scene through a visual technique that matches the interests of the biographer responsible for these stories. By uncovering the components that work to create the illusion, I hope to show how an artist can challenge the viewer to reconcile with the elements being shown. This is an attempt to deconstruct the medium through challenging the mainstream norms of representation in animation.
A transition used for this scene is a wave that comes in from the right of the screen; as the wave moved across the screen the next sequence was introduced as the diorama scene was wiped off screen. The trilobite sequences I found to be the most rewarding because of the chance they gave me to experiment with transition. My goal was to use transitions creatively to link together somewhat disparate scenes into one unified sequence.

The next shot in the sequence was another imagination sequence that attempts to visualize the layers of sediment that built up over the trilobite over time. Using a combination of three-dimensional and two-dimensional assets in the same sequence, I
created an underwater scene. The lighting was the most important part in getting the scene to appear as if it was underwater.

The trilobite scenes gave me a chance to visualize my ideas related to virtual dioramas to expose the artificiality of animation.

4.8 Outdoors Exploration/Snake Dissection Scenes

Since one of the most important themes was exploration, I found it necessary to include a scene that demonstrates this. In the memoir, Nathan describes this influential experience in March 1922 as being “my own private exposure into the wonders of nature.” (Hale, 2001, 18). This story alone was influential in helping me establish the beginning of this sequence. Nathan explains how his decision to go out towards the field and apple orchards had been planned for a long time in his head and was a momentous choice.

This vignette is important in the development of the story as a whole because it represents an important trip of solitary adventure. In a few of these short sequences, I wanted to continue on the quest to expose the artificiality of the sets while also paying close attention to how these concepts could work in tandem with the motivations of Nathan and the stories he wrote in his biography.

The street sign and tall trees scenes were composed directly from stories in the book. They were used as a lead up to the final scene in which Nathan finds a snake and is overtaken by curiosity. I wanted these sequences to have a long duration to express a contemplative mood. Nathan describes the tall trees as being akin to a cathedral, towering over him. By animating the focal point in the camera, the cathedral effect was heightened. This technique helped to heighten the appearance of the trees towering over the viewer,
while also adding a strange feeling to the sequence. It seems as if the trees are not only reaching for the sky, but that they are also being skewed inward towards the focal point of the shot.

The next scene is also used as a virtual diorama. At this point Nathan is still exploring the forest and eventually ends up finding a snake. While building this scene, I tried many different things in order to get the scenery to look like a diorama. After visiting the Ohio Historical Society, a museum in Columbus, Ohio, I began to think about the kinds of qualities that I found in the dioramas that were present in these examples. These dioramas all have some wildlife posed in them and possess an eerie feeling because of how they are frozen in active poses, and possess a definite artificial quality. As I built the scene for the snake dissection it was important to reintroduce this idea through the same means in the previous scenes: making the matte paintings visible as flat surfaces which helped to reinforce the mixture of 2-dimensional objects with 3-dimensional objects. It was not necessary to explicitly make this known, but to instead use subtle clues that guided the viewer to make these assumptions. Since I had created this scene after the trilobite scene, I had learned from my past experience and sought to make this scene artificial without explicitly showing it like I did in the trilobite scene. Therefore, I did not pull back from the set, but instead let the camera wander through the set. The corners between the matte painting and the ground plane are visible further reinforcing the feeling of artificiality.

4.9 The Snake Dissection Scene

The dissection of the snake had been a scene I was planning since the beginning of production. I wanted to challenge the viewer to understand how a young surgeon living in a
family of medical practitioners would approach the notion of play and exploration. This sequence was an important challenge in that many animators would be hesitant to include this kind of morbid, strange activity. I did not seek to shock the viewer, but instead I saw a chance to create an animated sequence that would be difficult to recreate using live-action film. But its importance within the context of the story was the main motivation for its inclusion in the film in that it helps establish the kinds of experiences that Nathan would regularly engage in during his youth. In the Hale household, death was a commonplace occurrence that Nathan understood to be an important fact of life. Through this I found it necessary to somehow illustrate the relationship Nathan had with mortality. This idea resonates throughout the biography, but through this sequence I was able to demonstrate how this idea played out in his childhood experiences.

4.10 Diploma Scene

This final scene acts as a culmination of all the experiences and imaginative explorations in the previous scenes. I believe that it is one of the strongest scenes in that I get a feeling of accomplishment and pride after contemplating the previous scenes. In this scene, I used several different visual ideas that demonstrate how Nathan is looking to the future, as well as remembering his past. The diploma was something that he had to work very hard to receive, and he was quite proud of it. Displayed prominently next to the diploma were two different pictures that were taken from his youth.
5. CONCLUSION

5.1 Conclusion

The initial focus of this thesis paper is concerned with combining the discourse of experimental and avant-garde filmmaking with the practice of contemporary computer animation. In this conclusion the goal is to assess the outcomes of this animation by observing in what ways the animation succeeded as biographical work which utilizes experimental approaches as found in avant-garde filmmaking. This thesis addresses the question of how animators can approach work within their practice by looking towards other concepts and techniques often considered as outside the contemporary practice of computer animation. The animation project serves to explore how the influences of experimental film and postmodern philosophy informed the creative process of the animation to assess whether this blend was effective.

Throughout the production of this animation I found it difficult to fully realize how the story would come together. There seemed to be many different ways to tell this story, and a solution seemed elusive. While reviewing works from the artists discussed in the background chapters, I sought to find a new way to present a creative look at reality through storytelling. Guided by these interests, I found inspiration in concepts regarding postmodernism, deconstruction, and incorporating their influence in experimental and
avant-garde film while using the medium of computer animation. I began to think about how I could develop a personal style using objects in the animation which have multiple meanings, where the objects as artifacts and the significance they hold is used to illicit a host of different stories and visual components. My aim was to not only translate the memoir into an animation, but to also apply some of the conceptual frameworks that I have been interested in from the beginning of my studies.

5.2 Use of the Diorama

A virtual set of landscapes is a significant part of this animation project. My interest in Nathan’s eccentric collections (that still reside in a small museum in Wilmington, Ohio) gave meaning to the technique of making these landscapes into virtual dioramas. Though they were created with a computer in a digital environment, the aim was to simulate some phenomena of a real environment with the full understanding that it’s attributes would only stand in for reality. The inherent qualities of a synthetic, computer constructed set would present difficulties in both the production of the assets as well as the philosophical premise of the scenes themselves. Stemming from Baudrillard’s contention that images do not possess truths, yet operate as significant objects with meaning (McNeill, Feldman, 1998, 442), story can be used to facilitate a visual exploration of the ideas of hyperreality. I wanted to show how in a virtual environment, these objects or signifiers, can possess a stream of signified meanings. The ability of any object to take on simultaneous significance was explored through the trilobite object. s. It serves as a fossil, a landscape, a live animal, an animated abstract sculpture, and a subject for the basis of a formative study of natural history. The tonsils serve as a collection, and as a visualization of the group of children that
lined up to get their tonsils removed. The ability of these objects to take on such diverse significances stems from their condition in a computer graphics program and the ways they can be manipulated and visually represented.

The most successful sequence that uses the virtual diorama is demonstrated in the trilobite sequence. Here, a scene of the trilobite is used to take the viewer from a prehistoric scene to a virtual diorama by uncovering the set as constituent elements instead of a cohesive whole. Using the imagination of the author of the memoirs, this uncovering best demonstrates how a shift in camera position transforms the set into a virtual diorama by allowing the viewer to discover the components, and for a short time, the matte painting, which once had depth is now relegated to a flat canvas. In an attempt to recreate these same visual attributes, the scene in the forest where Nathan discovers the snake also uses the flat matte painting as a cue that we are, in fact, viewing events that are taking place in a virtual environment, though in this scene it is less obvious. The way this metaphor is introduced leads the viewer on a quest to understand the nature of the process of creating animation.

The diorama technique integrated well with the animation because it was subtly exposed throughout the film. Through slow camera movements, subtle hints are effectively uncover the virtual stage as it becomes apparent that some of the assets are flat and motionless.

The diorama is explicit in the trilobite scene, and then used in subsequent scenes with more discretion, specifically the outdoor scenes. In these scenes, the viewer must examine the set in order to realize it is modeled after a diorama. Artificial qualities were always in consideration during the film production because the diorama was an important
strategy employed to tie the story together with the lifelong fascination that Nathan had with museum displays.

Another reason the idea of the diorama comes through so strong is that it is explicit in the trilobite scene, and then used in subsequent scenes with more discretion, specifically the outdoor scenes. In these scenes, the viewer must examine the set in order to realize it is modeled after a diorama. Artificial qualities were always in consideration during the film production because the diorama was an important strategy employed to tie the story together with the lifelong fascination that Nathan had with museum displays.

5.3 Point of View in Experimental Animation

This film does not contain the typical protagonist/antagonist relationship intrinsic in mainstream film. One of the first things a viewer might point out is the absence of an onscreen character, which was instead replaced by a narration in the form of a voiceover describing the personal memories and onscreen activities of Nathan.

In contemporary experimental animation, the character, if one exists, is usually not the centerpiece of the work. But in this film, it was important to express the ideas through a device that was more indicative of experimental animation than of its mainstream counterpart. Since I chose to use an off-screen character to carry out the narrative component of this short film, emphasis was placed on the story and less on visual character attributes.

In the snake dissection scene, the scalpel is floating while cutting the snake open. This intentional absence of a characters’ hand guiding this instrument is a direct reference to the fact that throughout the film a character does not exist in the conventional sense. This
sequence reinforces this fact, and through this I hope that it becomes more explicit to the viewer that this film was not influenced by mainstream film conventions.

The story is told through a voice-over, and my intention was to allow the viewer to experience everything in the film, instead of watching the protagonist experience it. When this point of view is used throughout the film, it challenges the mainstream notions and uses of the first person point of view. Thus, the entire film is from the perspective of the individual involved in the experience of discovery, which in turn supports the main concepts behind the film.

5.4 The Combination of Biographical Storytelling

The way in which the biographical content of the animation is conveyed to an audience is also an important element for evaluation, with regards to the application of experimental approaches. My intent was to reinforce the fact that this animation is based on actual experiences, and I believe this combination of biographical content and experimental contemporary animation techniques allowed an exploration of the subject matter in an unconventional way.

In many ways, the personal tone of the biography is contrasted with experimental animated sequences through a blend of storytelling and my own research into Nathan’s life. By looking to other activities not highlighted in the film that Nathan speaks about throughout his memoir, I was able to isolate a specific experiential feeling that I believe complements Nathan’s storytelling intent.

The narration gives cues regarding Nathan’s reflection on his past experiences. When Nathan was recalling his history, the narration would represent that memory or imaginative
interpretation of his thoughts while the animation visually complemented the narration. One example is when he discusses how his father regarded the problem of appendicitis. In this sequence, we see mold growing up the basement wall as a metaphor for the eventual discovery of a remedy, while also hearing Nathan speak about what his father had said regarding the malady. Another supporting example is when Nathan is imagining the process of fossilization. In this sequence the compression of time is represented figuratively, while the narration reflects a condensed version of Nathan’s thoughts on the life of the trilobite. The sequence when the camera dives into the tonsil jar is another example of matching the biographical narration to an experimental visual component. While the narrator describes the children lining up and waiting for the tonsillectomy, the objects that represent the tonsils in the jar are also organizing themselves in a similar fashion.

Creating narration that matched the memoir was accomplished by having the voice actor imagine that he was speaking about these events to a friend. This helped the biographical and contemplative elements of the narration to feel more believable through paying attention to how the tone matched that of the memoir. Overall this combination was often informed by constant contemplation and understanding of the material by the filmmaker.

5.5 Reflection on Conceptual Process

Animation is inherently a practice that produces only the artificial or synthetic; the end product is a series of images and sounds that may contain representations of reality, but do not exist in reality. Jean Baudrillard writes about how the ubiquity of screens has profoundly impacted our emotional investment with objects of reality. His thoughts on the surface of communication point to the real objects as a screen where operations are
constantly unfolding. (McNeill, Feldman, 1998, 441-442). Looking at the idea that animation artists are not creating objects, but instead creating experiences that unfold on a screen shows how a shift in art making practice is currently taking place.

Several new techniques of animation can be explored when an experimental approach provides the conceptual underpinning. This inquiry became important while creating a short animation because it afforded the opportunity to create a work with unlimited means of expression. During the production, editing and developing new ideas in the story was an important aspect in exploring new techniques with storytelling, but I continually considered how certain experimental film strategies and resulting experiences could reflect the concept of artificiality more effectively. Since artificiality and the way that we communicate through film are important issues to me, the film reflects a variety of developments for treating virtual objects in film. These ideas were often expressed in the way that I treat the objects as in artificial space or virtual diorama, and the way in which they serve to contain multiple meanings.

Traces of the true biographical story are featured in the same way that traces of reality exist in animation, and the narration was adapted from what was taken to be reality much in the same way that the objects used in the animation were adapted.

5.6 Implications

This practice-based research proves that there are many different aesthetic combinations available to the animator by incorporating ideas related to critical theory. The animator should not follow only animation history in order to find inspiration to create meaningful work. This project serves to reinforce the case for experimental approaches,
using methodologies found in avant-garde filmmaking and postmodernist theory typically considered outside the contemporary practice of animation. This thesis is in essence making a case not only for approaches found in experimental film, but also for finding new creative approaches to combine other sources of interest that the artist might have. The fact that I did not work within the mainstream should encourage the beginner animator to take cues from the concepts that I have presented in this thesis. These ideas are not to be followed explicitly, but instead should be used as an outline for creative inquiry. To an art historian, this thesis might seem elementary in its assessment of postmodernism, but to many animators, the inclusion of discourses outside the art of animation is often seen as a large departure from their understanding of animation practice. This line of inquiry should not be overlooked. The fact that art history and its many movements are constantly being informed by practices and theories outside of their own is quite common. In other words, literature, visual arts, performance arts, and even architecture are all looking to other disciplines and to each other for inspiration. Animators should carefully consider how their work helps to advance the art of animation, not just from a technical point of view, but also from a conceptual stance. When we examine other art movements, it is apparent that they came from a myriad of sources, not just the art movement itself. Art is an elastic field which is always being influenced by outside techniques, processes, concepts and philosophies.

In summary, I learned that my creative process was informed by many things in our culture and society, but philosophy, the avant-garde and experimental cinema became my primary interests while creating this film. As the film was in production, I continually found myself looking and thinking about other aspects of art, design, motion, and storytelling. I became consciously aware of the role that society, technology, and culture have on our work
as artists, and allowed this idea to inform my creative work throughout the process. I found myself looking in museums, at the world around me, nature, and at historical books to find inspiration and useful information to help to create this project. Being able to combine all of these influences and interests into an animation project was a difficult but rewarding experience.
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