Releasing The Power Within: Exploring The Magical Girl Transformation Sequence With Flash Animation

Danielle Z. Yarbrough

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This studio-based thesis explores the universal theme of transformation within the Magical Girl genre of Animation. My research incorporates the viewing and analysis of Japanese animations and discusses the symbolism behind transformation sequences. In addition, this study discusses how this theme can be created using Flash software for animation and discusses its value as a teaching resource in the art classroom.

INDEX WORDS: Adobe Flash, Tradigital Animation, Thematic Instruction, Magical Girl Genre, Transformation Sequence
RELEASING THE POWER WITHIN: EXPLORING THE MAGICAL GIRL TRANSFORMATION SEQUENCE WITH
FLASH ANIMATION

by

DANIELLE Z. YARBROUGH

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of
Master of Art Education
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RELEASING THE POWER WITHIN: EXPLORING THE MAGICAL GIRL TRANSFORMATION SEQUENCE WITH FLASH ANIMATION

by

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Electronic Version Approved

Office of Graduate Studies
College of Arts and Sciences
Georgia State University
May 2014
DEDICATION

I dedicate my thesis to my grandfather, Dean S. Yarbrough II, because he taught me to treat young people like rock stars and to have high expectations so that they will feel empowered to achieve their own dreams. Thank you for everything and I love you, Grampy. I would also like to thank my family because they have always supported me throughout all of my academic endeavors and helped to pave the way for my success. Finally, I thank God for giving me the gift of persistence, resiliency, and tenacity to finish school and build a new future for myself.
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CHAPTER ONE

Introduction

The theme of my studio-based thesis is a dialogue about transformation illustrated through Adobe Flash animation. My desire to create a short digital animation was inspired by a body of work that I created in my studio classes called, Volcanic Eruption. The Volcanic Eruption series consists of two parts about a warrior named Sulfur who was an amalgamation of many of my original characters from childhood.

Volcanic Eruption I was a short study on the visual composition within the Magical Girl transformation sequence. I referenced the popular visual style of Sailor Moon to create five cut-paper collages that illustrate Sulfur’s powerful transformation. Although Volcanic Eruption I was created after part II, it was meant to act as a creation story. In this short series, while Sulfur is gestating in the fiery womb of a volcano, her magical transformation occurs. I chose to paint the background with warm colors to represent the searing hot magma that surrounded the magical being as she transformed.

Figure 1. Danielle Z. Yarbrough, Volcanic Eruption I, panel 1, 2013, Acrylic on Paper, 18 by 24 in.
Figure 2. Danielle Z. Yarbrough, Volcanic Eruption I, panel 2, 2013 Acrylic on Paper, 18 by 24 in.

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Volcanic Eruption II illustrates Sulfur’s struggles as she defends herself from dark forces, called relics that were trying to attack her while she was being born from a volcano. She defeats all of her opponents, and meets another warrior, named LEAD and they fall in love. I created this series to be a visual metaphor to remind myself to be strong and push past adversity.
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Figure 10. Danielle Z. Yarbrough, Volcanic Eruption II, panel 5, 2012, crayons, 5 by 3 ft.
Part of my inspiration for this project springs from the fact that I experienced personal transformation after a visit to Paris. During my junior year at Clark Atlanta University, I had the opportunity to study abroad in Paris for a semester. At the time, I was a French major, but halfway through the semester, I found myself reaching out to Paris’ art community more and more. I have always had a love for the Visual Arts, but my fear to pursue an art degree after high school kept me from applying to art schools. I was afraid that I would become a “starving artist” and struggle through life. While visiting the Rodin Museum, I remember having an epiphany after looking at the iconic Thinker sculpture for a long time. I had to change my major to Art, because I felt like I would be denying a huge part of myself that longed to be immersed in the world of the Visual Arts. It was that stifling fear of not living my dreams that caused me to make the decision to change my major from French to Art. I am very grateful for the self-actualizations that I experienced while I lived in Europe and I would like to think that it was the catalyst for my personal transformation from a directionless French major to a motivated Art and Art Education major.
When I became an Art major at Clark Atlanta, I felt like I was transforming! My time was very brief and I only had one year and a half to complete my degree. I dove into my work, taking advantage of every opportunity that came my way. One of the opportunities that I am most grateful for was the *Kasha and the Zulu King* animated film internship at Turner Studios. This experience helped to shape my life as an artist, because I learned what it meant to be in a creative environment and work with professional artists. Even my interview for one of the animator positions had a profound effect on me. I was advised by one of my art professors at Clark Atlanta to show the director my best figurative work—which consisted of art from my high school portfolio. I was a little unsure if my portfolio was strong enough to show the extent of my drawing skills, but during my interview, the director, Jai Husband, was very impressed with my figurative work. I was hired as an animator and taught the technical skills that were required to animate Jai Husband’s movie characters. My strong drawing skills allowed me to be promoted to one of the supervising animators for one of the lead characters, Thedlewe, who was voiced by Shirley Franklin. *Kasha and the Zulu King* premiered on BET on September 8 and Centric on September 15, 2012, and recently won the 44th annual NAACP Image Awards for Best Children’s Program.
This internship was an affirmation for me that I needed to continue to follow my passion and create a life for myself in the Visual Arts. Becoming an art major and interning at Turner Studios gave me direction and ultimately inspired me to become an Art Educator, because I wanted to use my diverse experiences to impact the lives of young people. In this thesis project, I decided to apply the skills that I learned in college, my internship, and my graduate art courses to create a Flash animation that explores the importance of transformation. POWER is a study of my interpretation of the magical girl transformation sequence that is commonly found in Japanese animation. I hope to use my animation as a valuable resource to teach Flash Animation in the classroom.

Magical Girl Genre

I have always been fascinated with the theme of transformation, and I was first introduced to this theme through the Magical Girl genre found within Japanese cartoons, or anime. This genre originated in Japan in the mid 60’s, and is one of the most popular genres among anime fans. The first
Magical Girl anime, *Sally the Witch*, premiered in Japan in 1966. When this sub-genre first developed in the 60’s, the heroines were mostly magical beings such as witches, mermaids, and princesses. During the 70’s, magical girls evolved into more mature roles and the most popular archetypes were cyborg heroines. In the 80’s and 90’s, following the influence of cyborgs, magical girls evolved into warriors and frequently used their powers to fight evil. Some popular examples are *Sailor Moon* and *Revolutionary Girl Utena*. *Sailor Moon*, by far, is one of the most well-known Magical Girl animations. It premiered in Japan in 1992. This anime has had a huge commercial success all around the world, and has been translated into 15 different languages. Even today, it is still a very popular series, and has celebrated its 20th anniversary this year, (Sailormoon-official.com).

*Sailor Moon* has left such a huge legacy, that many other Magical Girl series continue to use many of its ideas and concepts such as: fighting monsters and evil opponents, transformation activation words, and stylized transformation sequences.

[The] heroine usually utters a key phrase, accompanied by certain gestures and/or using some sort of magical device, and then hovers into the air over a magical background, then has her clothes disappear as her hero costume glows into existence over her, (tvtropes.com, 2004, para. 2).

Magical girls are protectors and use their magical abilities to defend themselves and others. They typically started off as ordinary and not very confident, but after their transformations, they develop a stronger sense of self-assurance in their own abilities. Below, I discuss the popular animated series, *Dragonball Z*, because transformation played a vital role in the show during action scenes that involved conflict and adversity. In *Dragonball Z*’s Sixth Season, one of the main characters displayed ‘magical girl’ characteristics because he held a hidden power within, and it was only during the final confrontation with the super villain that his hidden abilities were awakened.
I believe that transformation is a culturally relevant theme to teach to young people, because it can be used as an empowering metaphor to encourage students to rise to their greatest potential. *Sailor Moon, Revolutionary Girl Utena, and Dragonball Z* were my favorite series to watch in my youth. I was inspired by the characters’ metamorphoses into strong warriors, and this is reflected in my artwork. These animations have had a positive impact on my life, and I believe that teaching children how to create their own digital narratives that include transformation sequences will inspire them as well. For my studio-thesis project, I created a short animation that I will use as a teacher sample to teach students how to use Adobe Flash. During this study, I analyzed and deconstructed the visual elements and symbolism within these three animated series in order to help me create my own animation. While I created my transformation sequence, I documented my production process and provided implications on how Adobe Flash can be used in the art classroom.

**Purpose of Study**

The purpose of my studio-based thesis was to interpret the significant themes within the transformation sequence in the Magical Girl genre, document the process of creating a Flash animation, and discuss how thematic instruction can be used to teach Flash Animation in the classroom. According to the book, *Art for Life*, creating thematic projects can encourage students to become more actively engaged and use higher cognitive thinking skills.

Through investigating meaningful themes, students weigh and synthesize new information in relation to their own personal experience and so can create or construct new knowledge… [and] this will give them a sense of their place in the larger world and of the many possibilities for choosing and making meanings in that world, (Anderson and Milbrandt, 2002 p. 33).

Art educators should understand how to teach digital narratives in the classroom. Animation is a relevant subject and many young people are interested in the medium. However, many students are unfamiliar with the conceptualization process and technical skills that are necessary to create digital
stories. They also may not have been taught to appreciate the discipline and effort professional animators must have in order to create animated sequences and digital compositions. When I was a part of the animation internship at Turner Studios, my creative director taught me skills that were relatively easy to understand and implement. I feel that this would be an excellent project for students, because one of my fellow interns was a high school student, and he was a very talented animator.

When I worked on my internship at Turner Studios, I had the pleasure of working with many interesting and talented interns. Although my director, Jai Husband, primarily selected interns from Clark Atlanta, Morehouse, and Spelman, he also selected a few other talented art majors from other colleges like SCAD and the Art Institute, as well as one high school student. I was very impressed by this young man’s technical skills and excellent draftsmanship. His presence made me realize that animation is not a difficult skill to learn and young people can be just as skilled as adults if they are properly trained. I appreciated his presence on the team, because he brought along the energetic freshness of youth. After completing the internship, I decided that I wanted to teach young people animation skills. I also feel that animation classroom projects would be an excellent way to encourage more collaborative assignments because in the industry, animators work in teams to complete projects.

Need for Study

The art classroom is often a place of self-discovery and self-actualization. I believe Flash animation is an excellent medium to help students articulate their feelings about themselves. “Art educators today need to become more sophisticated in their use of newer digital technologies, acknowledging that opportunities for image-making must extend beyond clay, crayons and paint,” (Stankiewicz, 2004, p. 90). Mayo (2007) suggested that art educators teach students the value of the conceptualization process: “Spending lesson time on planning the project is worthwhile. The preconception process is the most vital phase of any art and design project,” (p.49). The conceptual process of creating an animated narrative includes: researching topics, writing the script, drawing
storyboards, and production. As an animation intern, these processes were the most important steps, and I could not create engaging sequences without utilizing these invaluable skills.

Mayo (2007) also emphasized presentation and critique, because these are real-world skills that professional animators demonstrate in the workplace. Before animators can create their scenes, they must create their characters, storyboard the actions, and present their ideas to their director for review. Animators that are hired by large companies like Turner and Disney, work together in teams to complete projects. Kundu and Bain (2006) explain that learners benefit substantially from working in collaborations. “By working as a team with the same goal yet individual tasks, children experience how it is in a real workplace—people, with differing jobs, working toward one goal,” (p.10).

Animation is also an excellent tool to tell stories and narratives can be used as a way to document and explain the human experience. Delacruz and Bales (2010) wrote that narrations result from, “the human need to collect, recontextualize, and confer meanings on objects as a means of seeking permanence in the world,” (p. 33). There is so much structure within school systems that art educators must provide young people the opportunity to voice how they feel through mediums that they can relate to. “[Their] insights and renderings captured in fleeting moments may each serve as a means of making special and strengthen student identities that are in the process of developing,” (Delacruz and Bales, 2010 p.39). I saw this strength and confidence blossom in my fellow high school intern, and I feel that the same confidence could be cultivated teaching other students how to create their own Flash animations.

In conclusion, I believe that it is important for art educators to teach the process of Flash Animation to learners. It is also important that students learn the value of research and preparation during the conceptualization process. There are intellectual and collaborative advantages to thinking and engaging in the systematic process of animation. Finally, because of my internship experiences working with Adobe Flash, I used this tool to create my studio-thesis artwork. My animation, POWER,
will have a thematic focus on the Magical Girl transformation sequence, and will also act as a teaching resource. By teaching students to use Adobe Flash, learners will be able to construct their own thematic animated narratives.

**Key Terms:**

Throughout my research, I will use the following terms:

**Adobe Flash:** a software graphic program that uses a vector system to create graphics, (Jackson 2010).

**Animatic:** a storyboard that has audio and/or dialogue, (Laybourne 1998).

**Bitmap:** a digital image composed of a matrix of dots, (Techterms.com).

**Cel Animation:** A traditional animation process that consisted of using transparent acetate sheets to create animation, (Laybourne 1998).

**Cut-Paper Animation:** a simplified form of traditional animation that consists of animating figures made from paper, cloth, and other materials, (Laybourne 1988).

**In-Betweens:** the drawings between the key frames which help to create the illusion of motion, (Laybourne 1998).

**Key Frames:** markers of precise moments when a selected image will be manipulated in one way or another, (Laybourne 1998).

**Magical Girl Genre:** a Japanese animation genre about young heroines that have magical powers (Tvtropes.org).

**Motion-Tweening:** a feature available in Adobe Flash that allows you to easily animate the motion of an object, (Techterms.com).

**Optical Toys:** toys that gained popularity in the early 1900’s that used basic optical illusions to simulate movement, (Laybourne 1998).

**Persistence of Vision:** a theory that stated that the human eye can retain an image for a fraction of a second, before the image disappears, (Laybourne 1998).

**Thematic Instruction:** an instructional method of teaching that uses theme to construct knowledge, (Anderson and Milbrandt 2002).

**Tradigital Animation:** A Flash animation technique that requires the usage of traditional animation and digital processes, (Georgenes 2007).

**Transformation Sequence:** A change of form and costume that allows the magical girl to access her hidden powers (Tvtropes.org).
**Vector**: graphics that can be scaled larger or smaller without losing quality, (Techterms.com).

**Wacom Tablet**: a device that allows animators to draw graphics directly on to the computer and omits the paper production process, (Georgenes 2007).

These terms appear throughout my literature review in Chapter Two and in the description of my process in Chapter Four. In Chapter Two, I will elaborate more on the history of animation, discuss how thematic pedagogy can be used to teach the animation production process, and analyze the themes within the transformation sequence in the Magical Girl genre.
CHAPTER TWO

Literature Review

Flash animation is a powerful tool to use in the classroom, because it is a process-oriented medium that is an excellent platform for thematic narratives. Animating with Flash can also allow students to build computer literacy skills and learn traditional animation production techniques. Flash’s hybrid nature has led it to be deemed a *tradigital* medium, because it blends traditional animation processes with digital media. Exploring Flash animation in the art classroom is ideal because the entire history of animation is rich and delightful. Animation has brought joy to people of all ages all around the world, but many are unaware that the earliest forms of animation began as simple optical illusion toys made during the early 19th century (Laybourne, 1998, p. 18). These toys are very simple to create and many art educators have used them to help teach students the fundamentals of animation. As mentioned earlier, the process-oriented nature of Flash software can be enhanced with thematic pedagogy and can also cultivate 21st-century skills. This dynamic medium allows students to tell stories about their life experiences, builds personal relevancy, and can motivate learners to pursue Arts-related fields. In this chapter, I will discuss the history of animation, examine how thematic pedagogy can be used to teach animation effectively, and interpret the transformation themes within the Magical Girl genre.

The History of Animation

During the early 1900’s, there was a line of toys that used basic optical illusions to simulate movement. Although some of these toys seem very basic in their design, they utilized a sophisticated scientific theory called the *persistence of vision* to create the illusion. The persistence of vision theory stated that human eyes can retain an image for a fraction of a second after the image has disappeared. When a single image is flashed at the eye, the brain retains that image longer than it is actually registered on the retina. So when a series of images is flashed in rapid order...and when the
images themselves are only slightly changed...the effect is that of continuous motion, (Laybourne, 1998, p. 26).

During the 1900’s, there was great public interest in using technology and art to create illusions of continuous motion, because of the invention of the camera.

**Thaumatrope.** The first optical toy was the Thaumatrope, and it had a very simple design. This device was a flat paper disc, with two designs on each string. It had two long strings attached evenly on opposite sides of the disc. To successfully manipulate this toy, the user had to pull the two strings simultaneously in order for the disc to spin and meld the two images into one whole image. Although this toy did not show the illusion of motion, it did utilize the persistence of vision to trick the eye into seeing an uninterrupted figure. The most popular design was the bird in the cage, which depicted a bird on one side and a metal cage on the other. When spun, the bird appeared in its cage. This device was a charming little toy, but it fell out of popularity with the invention of the phenakistoscope in 1832.

**Phenakistoscope.** The phenakistoscope was invented by a Belgium physicist named Joseph Plateau in 1832 (courses.ncssm.edu, 1996, para. 1) and it was the first optical toy to create the illusion of implied movement using a series of successive images. This device consisted of two paper discs that were attached to a metal axis. The two discs had an even number of slits that were cut near the side of its entire circumference. The second wheel had a series of still images in between each of its slots. In order for the toy to create the desired illusion, each frame had to show a progression in movement and stance. The Phenakistoscope’s two discs had to be spun in the same direction and viewed through a mirror. “When viewed in a mirror through the first disc’s slots, the pictures on the second disc will appear to move,” (courses.ncssm.edu, 1996, para.3). This toy had a huge commercial success for several years until the invention of the zoetrope in 1867.

**Zoetrope.** Another optical toy, the zoetrope was named after the ‘wheel of life.’ Unlike the phenakistoscope, it did not call for the use of a mirror and its open design allowed users to enjoy the
experience of watching brief animations together. The zoetrope looked like a small up-side down drum that was held together by a turntable base. A series of sequential drawings on strips of paper could be placed inside the Zoetrope’s inner walls. Like its predecessor, the phenakistoscope, it had slits that were distributed evenly around its entire diameter. The slots were used to line up with the paper reel and allow the viewer to watch the animations created when spun. “...The faster the rate of the spin, the smoother the progression of images. A viewer can look through the wall of the zoetrope from any point around it, and see a rapid progression of images,” (courses.ncssm.edu, para 3).

**Praxinoscope.** The arrival of the Praxinoscope in 1877 caused consumers to lose interest in the Zoetrope. This new device can be described to be the “High Definition” optical device of its day, because it projected better quality animations. It also held more film so it could show longer animations and could be used to project imagery on to a screen. This device originated in France, and was invented by a man named Charles Reynaud (courses.ncssm.edu, 1996, para. 1). It had the same drum-like silhouette of the zoetrope, but its internal design differed dramatically. Unlike the zoetrope, which had one large cylinder that was used to support its animation reels, the Praxinoscope had a leaner cylinder placed inside its center. The smaller cylinder had a small set of mirrors that were glued to its walls and were equal to the number of frames on the reel stills. The outer cylinder also was designed to rotate, and once spun, the viewer could watch the animation from the mirror’s reflections. (courses.ncssm.edu)

**Flipbook.** Another optical toy that played a pivotal role in the advancement of animation was the invention of the flipbook during the beginning of the 20th century. This stream-lined optical toy was made by binding a number of successive drawings together to thumb through quickly to view the brief animated sequence. This toy used a technique called the registration system to achieve the illusion of motion. The registration system was a simple way of keeping all the pages aligned properly, so that the animation could transition evenly. The flipbook is also credited to have had a direct influence on Cel animations, because that technique also uses the registration method. “Flipbooks also invite comparison
with the technique of Cel animation, one of the most sophisticated of all animation techniques,” (Laybourne, 1998, p. 22).

In conclusion, optical toys have had a tremendous influence on the evolution of animation. Using persistence of vision and the registration system technique, these optical devices delighted the imaginations of consumers of the past, similar to how contemporary animation continues to entertain us in the present day. All of these devices are fairly simple to make and can be excellent art projects to help students learn more about the origins of animation. The Thaumatrope, Phenakistoscope, Zoetrope, Praxinoscope, and the Flipbook have all provided basic techniques for the advent of cartoon animation.

Over a hundred year period, inventor after inventor further refined these optical devices. Along the way, machines combined with the emerging technology of photography to create yet another entertainment, the movies. Mechanical toys were wedded to celluloid and gave birth to cartoons, (Laybourne, 1998, p. 18).

Cel Animation

The most popular style of animation that is used to create cartoons is cel animation. This process consists of using transparent acetate sheets to create animations. Although producing cel animations is a lengthy process, this technique has a great advantage: cels could be layered on top of one another so that animators did not have to draw every single detail in every frame.

For example, if a character is motionless on the screen for a few moments, except for his mouth, cel techniques allow the animator to use one cel to show the body and head, and another set of cels to animate the various positions of the moving mouth. (Laybourne, 1998, p. 172)

Walt Disney is credited with refining and elevating Cel animation. The Disney animation studios took cel animation to a whole new level by de-compartmentalizing the production process and creating an assembly-line hierarchy in the 40’s and 50’s. In fact, this hierarchy is still implemented in contemporary animation studios today, because of its stream-lined efficiency. During the first stages of
creating an animation, a storyboard must be created to visually narrate the storyline. “[A storyboard is] a collected series of single pictures, each of which represents a distinct visual sequence or narrative element within the project being developed,” (Laybourne, 1998, p. 100). During this time, the production team will record the voices of the voice actors, sound effects, and musical scores before the animation process begins. After the sound has been recorded, the storyboard and the dialogue are fused together to create an animatic.

Animatics are beneficial because they allow the animation team to determine if the dialogue connects with the storyboard illustrations and identifies any technical issues. With the help of the animatic, the animation director is able to make important decisions on the timing of movement, layout and design, and the art direction of the film. Once all of these conceptual ideas have been approved, the animation process can begin. Background painters are assigned to paint all of the sets in the entire film, and they generally use paint mediums such as watercolor and gouache. Often times, backgrounds in animation are painted with light muted colors and favor color pallets that complement the main characters bolder tones. According to Laybourne (1998), character animators are usually assigned to each character in the film, and are led by one lead animator.

The lead animator’s role is to draw their character’s major points of movement or key frames in pencil and paper. Then the assistant animator uses a process called, motion-tweening, which consists of drawing in-betweens in pencil to connect all the frames together. Once the pencil animations are completed, the drawings are inked and painted on to cel sheets and a film editor prepares the film reel to the matching soundtrack, before sending it off for duplication and distribution. Cel animation became a dominant force in the animation industry, but over time computer animation has overtaken some of the processes within traditional animation. For example, the ink and paint process has been replaced by computer graphics, and pencil drawings are now being inked and planned digitally before being exported to digital video files for distribution. In an effort to save time, many contemporary animators
have gone completely digital and have omitted the entire pencil and paper process altogether. There are many two-dimensional digital programs used presently, but for the sake of this study, I will focus on the industry’s usage of Flash.

Adobe Flash

Flash was originally designed to create two-dimensional computer generated animations for the web in the 90’s. Over time, this program has evolved into a sophisticated two-dimensional animation tool that has merged the best of traditional cel animation’s golden techniques with state-of-the-art digital tools to create delightful animations for the web, television, and movies. “Today, Adobe Flash is packaged with automated computerized versions of traditional animation techniques. Its format and workspace allows you to save a considerable amount of time and therefore reduce a project’s budget,” (Jackson, 2010, p. 12). This program has many advantages, such as: it uses a vector system to create media. Unlike bitmap files, which can become pixilated if enlarged beyond their resolution width, vector image files can be scaled up and down as much as possible. Vector files are generally smaller than bitmap files and advantageous for posting online. Art that is made in Adobe Flash is often called vector art.

Flash is well known for its inherent visual look which is vector-based. Vector art uses math to store and create an image [and] can be scaled without losing any detail. As a result, vector-based artwork produces rather small file sizes that are ideal for web delivery, (Jackson, 2010, p. 12).

It is important to know that bitmap files can be used in Flash to produce animations that are reminiscent of Cut-out animation. Cut-out animation is a simplified form of traditional animation that independent animators created in an effort to reduce labor and production time. Cut-out animators animate by photographing low-relief, usually paper, figures frame by frame, which can then be uploaded
to digital programs. South Park by Trey Parker and Matt Stone is an example of a digital cut-out animation.

Flash animators can also draw and paint directly onto this program with a mouse or with graphic tablets. When I worked on my scenes in Turner Studios, I noticed that all of the Flash animators used Wacom tablets and Cintiqs, while they worked. Graphic Tablets are also a mark of the contemporary movement of tradigital animation, because they omit the need for unnecessary paper animation production and save time. As mentioned earlier, the two most popular graphic tablets used are Wacom’s Bamboo tablets and Cintiqs. Bamboo tablets vary in size, and come with a stylus pen. It connects to the computer and the animator draws on to the tablet’s surface while the design appears on the computer screen. The Cintiq tablet is very large and far more sophisticated than Bamboo tablets, and allows animators to draw directly on to the screen. They also connect to the computer like a mouse, and come with a drawing stylus. This device completely omits the paper process that traditional animation is known for, and I saw many professional animators using Cintiqs while I interned at Turner Studios. “With the Cintiq you work directly on the screen. This allows you to take advantage of your natural hand-eye coordination since you are actually looking where you are working.” (Georgenes, 2007, p. 149).

Lastly, Flash is ideal for publishing animated series online (often called webisodes) for commercial entertainment and advertising. One popular web series that I have enjoyed watching is Mattel’s Monster High fashion doll series. This successful toy franchise has released three volumes of brief animated episodes. This web series is an advertising tool to educate consumers about the brand and provide thematic narratives of each doll’s unique background story.
As mentioned earlier, Flash animations are also very common for television productions and one of my favorite animated shows is the popular Adult swim series, *Metalocalypse*. This series uses Flash Animation to illustrate the comedic lifestyle of a successful heavy-metal rock band. Recently, the show aired its first TV movie special called *Doom Star Requiem*, which was a rock opera made entirely in Flash. *Monster High* and *Metalocalypse* are just two examples of incredible Flash Animations that reflect how many talented professional animators are taking this medium to the next level.

In conclusion, Flash has come a long way, and has evolved into a sophisticated medium that uses traditional processes to create digital animations for the internet, television, and movies. My experiences working with Flash during my internship taught me that this tool is fairly easy to learn, and could provide excellent content for an art education lesson program for young people. Flash shares
many of the processes of traditional techniques, which could help teach students to appreciate the process-oriented nature of animation. In general, Flash animators use the following production hierarchy: story, art direction, storyboard, dialogue, animatic, final animation, publishing, and distribution (Jackson, 2010).

Even with its simplified production process, teaching students how to use Flash requires considerable knowledge of effective teaching strategies. Animation is a very technical-based medium and can be viewed as irrelevant to some students if they cannot make personal connections to the art form. While many young people do find animations entertaining, there are some who may not be actively engaged if the technique was taught purely as a technical skill. Rather, incorporating fundamental themes into Flash projects can build meaning and relevancy. The pedagogical strategy of Thematic Instruction is an ideal method to teach Flash Animation projects, because of its focus on themes to narrate and investigate topics. This pedagogy also incorporates teaching strategies such as collaborative group work, hands-on activities, and documentation to construct knowledge. “Researchers have found that students learn better and more deeply when they take up powerful ideas, with units and lessons organized around key supporting concepts, then when they learn merely facts or techniques,” (Anderson and Milbrandt, 2002, p. 9). In the next section, I will discuss the benefits of thematic instruction and provide two examples of Art Education programs that have used thematic-based learning successfully.

**Thematic Instruction**

Thematic Instruction is a teaching strategy that uses themes to construct knowledge. “Themes arise from...personal relationships to topics...when we make a topic human and personal through such connections,” (Anderson and Milbrandt, 2002, p. 237). According to *Art for Life* (Anderson and Milbrandt, 2002), thematic instruction in art education should focus on universal human themes so that students can attach personal meaning and build appreciation for the Visual Arts. Thematic instruction
also has an interdisciplinary approach, because it fuses art and non-art disciplines such as math and science together. “Exploring a topic through art lets students become intimately acquainted with art as form...Themes are the conceptual center. Making and studying art are the means of addressing the concepts involved. Themes steer. Art drives,” (Anderson and Milbrandt, 2002, p.170). Flash animation is an excellent medium to investigate themes and illustrate personal narratives.

Themes should be selected that expand on personal relationships to certain topics, in order to set the groundwork for exploring new knowledge. “Themes give students an intellectual framework for connecting otherwise unrelated bits of information and modes of inquiry so as to find relevance and meaning,” (Anderson and Milbrandt, 2002, p.32). This pedagogy also fosters thematic inquiry, because students have multiple ways to investigate and collect new information through art-making activities. Such discipline approaches include: informed reading, historical examinations, observational drawing and painting, and critiques, (Anderson and Milbrandt, 2002, p.32). Critiques are very important tools to construct new knowledge because it involves the usage of substantial conversation. Through dialogue and collaborative assignments, higher levels of thinking can be stimulated and build stronger communal bonds within the art classroom.

Research sketchbooks are also a great tool to use to aid in the process of thematic inquiry. Research sketchbooks are the perfect mediums for self-discovery and problem-solving. They allow students to visually express incubated ideas and draw connections to their personal lives. “When students address themes in this way, their understanding increases: they connect their personal experience with universal themes found not only in art but in daily life” (Anderson and Milbrandt, 2002, p.33). Animators use research sketch books all the time to help them solve conceptual problems. When I was an animation intern, I created a pose booklet to help me determine how I wanted my characters to move on screen. My booklet was a valuable documentation tool and I will implement this tool in my
future animation curriculum. I feel that students will also appreciate using research sketchbooks because it is a real world skill that is utilized by professionals in creative industries.

Lastly, using thematic instruction to teach animation helps to develop essential 21st-century skills, such as creativity and collaborative work. Thematic Inquiry helps to stimulate important thought processing strategies, such as brainstorming and webbing to create a multitude of new ideas. Collaborations allow students to stretch their cognitive abilities, by communicating with each other and incorporating different perspectives to make impressive group projects. In the next section, I will provide two examples of art education programs that used different types of animation techniques to encourage higher-level thinking, collaboration, and thematic inquiry.

**Animated Visions Program**

In the article, “Teaching Animation in an Interdisciplinary Context,” Hayes (2007) provides an excellent example of how thematic-based animation projects can cultivate high cognitive-thinking and encourage real world connections. Hayes (2007) shares why embedding animation education within an interdisciplinary curriculum is important: “Animation is one of the most interdisciplinary art forms. It makes sense to teach animation in a way that connects it to the other disciplines that inform it and that attempts to address,” (p. 25). Hayes (2007) used a thematic approach to implement different animation workshops that incorporated non-art disciplines to enhance her curriculum. Her program *Animated Vision* explored 20th century Russian history and she created several animated exercises to prepare her students for the main assignment at the end of the semester.

Hayes (2007) screened multiple Russian films and engaged the students in critical analysis and discussions. Students were tasked with documenting their thoughts in research sketchbooks and film journals. While watching each film, the students had to record their thoughts in their journals and write brief summaries about each film. Her students were instructed to use their sketchbooks to take visual notes on their favorite movie scenes, character designs, and to draw thumbnail sketches of scene
compositions. This exercise helped the students to examine the aesthetical stylizations within movie scenes, so they could utilize those techniques in their own film projects. The students were also assigned to present a brief presentation on assigned films and talked about the various themes and techniques within their assigned movie selections.

For the animation projects, Hayes (2007) assigned her students to design a character from one of their assigned readings and animate them in a *walk cycle*. A walk cycle is an animation term, to describe a succession of figure drawings that imply that the character is walking. Since many of her students had different knowledge bases on animation, Hayes (2007) assigned an introductory exercise to create zoetrope strips of bouncing balls and walking sequences. When students accomplished this, they were required to have their characters transform into each other’s character, elongating the animation and adding brevity to the assignment. “The result was “Russian Character,”” an Exquisite Corpse composed of a sequence of walking characters who suffer abrupt and frequently hilarious transformations” (Hayes, 2007, p. 35). Students had the option of creating a two-dimension animation (using pencil, cut-out, or paints-on-glass techniques) or three-dimensional (stop-motion, Claymation, and puppetry).

The projects were a success and Hayes (2007) wrote that she was pleased by the students’ thematic stories and the level of creativity they brought to their projects. “[One] project involved beautifully designed articulated puppets and drawn backgrounds used to explore the desire for spiritual connections in the context of state enforced atheism,” (Hayes, 2007, p. 36). *Animated Visions* was a successful course because it used the cross-pollination of animation and non-art disciplines to enhance learning. Overall, it seemed to teach students that animation is a powerful visual communication tool that can be used to express important human themes. “Issues of representation, negative stereotypes, cultural blindness, appropriation or exploitation can be more easily addressed in animation” (Hayes, 2007, p. 24).
**Cut-Paper Animation Project**

The article, *Animation Education in an Indigenous Context*, illustrates another example of a successful animation project. The two teachers, Davenport and Gunn (2007), wrote about a cut-paper animation project that they implemented in a Mexican school called CRES Estipac. The school was founded in 1980, and its main mission was to provide vocational and entrepreneurial education programs to indigenous and rural students. Davenport and Gunn’s (2007) main goal for this project was to teach students and teachers how to use visual communication tools for thematic and narrative projects.

Our primary objective in designing workshops for CRES Estipac was to promote the development of skills and understandings in visual communication, in order that these teachers and students might engage more critically with media to which they are exposed, utilize the tools of visual media to produce their own stories, and share their vision with others toward greater intercultural understanding, (Davenport & Gunn, 2007, p. 50).

Davenport and Gunn’s (2007) animation program lasted only two weeks, but in that short period of time, they helped to facilitate three animations and three videos in different mediums. However, for the sake of this study, I will discuss the cut-paper animation, because it has a thematic focus on the CRES students’ relationship with their school community. Davenport and Gunn (2007) began the cut-paper project by teaching the pre-conceptualization of creating an animation first. They taught the students how to use the equipment and assigned them into teams to do fieldwork outside the classroom. “We sent teams of students out with equipment to record the myriad entrepreneurial activities and facilities throughout their campus,” (Davenport & Gunn’s 2007, p. 52). Many of Disney’s animated films in the 90’s, featured documentaries about how art direction teams investigated different locations in order to incorporate authenticity to the films’ backgrounds. In the *Making of documentary of Disney’s Hunchback of Notre Dame*, the art director talked about how he and his creative team
traveled to Paris to study the magnificent Notre Dame Cathedral in order to paint the film’s gorgeous scenic backgrounds, (www.youtube.com).

Once all the information had been gathered, Davenport and Gunn (2007) helped to facilitate a cut-paper production called, *A Day in the Life of CRES Estipac*. The teachers began the project by teaching the students about cut-paper animation and presented several examples of other student’s previous lessons. Then the students were instructed to use the photos they had taken as a reference to paint a large mural as the background painting for their animation. While one group painted the mural, other students were assigned to be the character animators and were taught how to make paper characters with movable joints. When both of these processes were completed, the students took turns animating the figures on the mural.

To film the animation, participants hung the mural on a classroom wall and used tape to attach and position the paper figures in various places. They then took turns animating the figures, using a video camera, laptop computer, and iStopmotion software to record them frame by frame, (Davenport & Gunn, 2007, p. 52).

To further enhance the student’s experience working on the project, Davenport and Gunn (2007) invited students to document the production process through video recordings and photographs. They complied all of the extra footage together and created a short “making of” documentary as a teaching resource to educate viewers on the student’s hard work to create an animated film. This project was very effective because it taught students how to use visual language to illustrate thematic narratives about their lives. Animation is a thematic tool that can benefit and empower youth and should be taught in the art classroom.

**Magical Girl Themes**

Finally, for the last section of this chapter I would like to identify and interpret the two central themes within the three animations that I referenced in the first chapter. These animations include:
Sailor Moon, Revolutionary Girl Utena, and Dragonball Z. Sailor Moon and Revolutionary Girl Utena are both classified under the Magical Girl genre, but Dragonball Z is an action cartoon. However, Dragonball Z has an important magical girl-like transformation in its Sixth Season’s finale episodes. In all three TV shows, the main character’s transformation symbolizes the occurrence of two universal themes: rite of passage and slaying the dragon alone. Referencing Joseph Campbell’s (1988) book, The Power of Myth, I will examine both themes' meanings and how they relate to each of the animated series. However, I will begin by providing a brief synopsis of each animated series.

Sailor Moon.  *Sailor Moon* was a Japanese animation that aired in Japan in 1992, and it is known to be the most iconic Magical Girl series. The story is about a young girl, named Serena, who discovers that she is the reincarnation of the Moon Princess Serenity. Her mother, the Moon Queen, sent Serenity and her personal soldiers to Earth, to keep them safe from an evil ruler. The series follows Serena’s transformation from a flighty and air-headed girl into a warrior woman strong enough to defeat the powerful villain at the end of the series (tvtropes.org).

![Figure 15. Sailor Moon, 1992, movie poster.](image)

Revolutionary Girl Utena.  *Revolutionary Girl Utena* was created in 1997 and can be described as a post-modern fairytale. This show is about a young girl named, Utena Tenjou, and her adventures at a prestigious preparatory school called, Ohtori. She befriended a mysterious yet passive girl named, Anthy...
Himemiya, and became involved in a series of fencing duels to protect Anthy from other duelists. Utena labeled herself as a prince, and every time she dueled, she transformed into a prince-like uniform. At the end of the series, Utena defeats the main villain and sacrifices herself to save Anthy (tvtropes.org).

Figure 16. Revolutionary Girl Utena, 1997, movie poster.

**Dragonball Z.** *Dragonball Z* was also created in 1997, and is one of the most popular Japanese animations of all time. This iconic show is about a group of martial arts fighters that protect the Earth from evil forces. In Season Six, the fighters had to face a powerful super villain, named Cell. The only warrior that was strong enough to defeat the monstrous antagonist was Gohan, the young son of one of the main characters. Gohan was a young boy, that had a hidden power inside of him, and it could only be awakened when he needed to protect his loved ones. After Cell killed one of his friends and his father, Gohan flies into a rage and transforms into a powerful being and defeats the evil villain (dragonballz.com).
Analysis

In all of these animations that I have described, there are the reoccurring themes of rite of passage and slaying the dragon alone. In The Power of Myth, Campbell (1988) describes rite of passage as a ritual that everyone must go through in order to transition from childhood to adulthood.

This adventure can be seen already anticipated in the puberty or initiation rituals of early tribal societies, through which a child is compelled to give up its childhood and become an adult...This is a fundamental psychological transformation that everyone has to undergo, (Campbell, 1988, p. 152).

In the Magical Girl genre, the main characters are usually young people who are still trying to understand themselves and the world around them. When they discover their transformation gifts, it helps them to overcome obstacles and endure dangerous tests. Oftentimes, when the magical girl or boy transforms, they appear to look physically older and display more adult-like demeanors. I interpret this visual change as a brief rite of passage, because the transformation allows them to challenge adult opponents. Sailor Moon, Revolutionary Girl Utena, and Dragonball Z’s villains were all powerful adults in
their prime, and could easily defeat the magical girl or boy in their non-magical state. The hero and heroine’s transformations gave them the strength to take on their more experienced opponents and win. The magical girl or boy’s final confrontation with the villain is always alone, which leads me to the second theme: *slaying the dragon alone*. Commonly associated with fairytales, this theme signifies the hero’s final battle to overcome a monstrous dragon. According to Campbell (1988), slaying the dragon represents facing one’s ego and inner fears. The Dragon represents a great fear that must be overcome in order for one to be liberated. “Ultimately, the last deed has to be done by oneself. Psychologically, the dragon is one’s own binding of oneself to one’s ego...The ultimate dragon is within you, it is your ego clamping down,” (Campbell, 1988, p. 184).

In the last episodes of Season One of *Sailor Moon*, Serena’s Sailor Scouts died protecting her from the evil ruler and Sailor Moon had to stand up against the villain alone. In a *David and Goliath*-like motif, the evil ruler used her magic to make herself into a towering giant, and the two characters faced off in an energy beam standoff, until Sailor Moon used all of her will to destroy the evil tyrant. In *Revolutionary Girl Utena*, Utena fought all the other duelists until she was the last to fight against the mysterious villain, named End of the World. She discovered that the antagonist was actually a love interest that sought to betray her and take her soul. Utena was able to defeat him in an intense sword fight and sacrificed herself to save her friend, Anthy, from End of the World’s control. By sacrificing herself, Utena demonstrated a separation from her ego which allowed her to place Anthy’s needs before her own. Finally in *Dragonball Z*, Gohan had to fight Cell alone, when all of his fellow warriors were unable to do so. In the final standoff, Gohan found the will within himself to unleash his amazing powers to defeat the seemingly unstoppable villain and avenge his fallen father.

I believe that *slaying the dragon alone* is a very relevant theme that students of all ages can relate to because everyone has to face challenges alone in their lives. *Dragonball Z*, *Sailor Moon*, and *Revolutionary Girl Utena* were all successful franchises because they used these two common themes to
create engaging and inspirational narratives. They talked about how each hero and heroine had to transition from immaturity to maturity and remind us that we all have challenges that we must face alone. Transformations helped to illustrate these universal themes and can also help to inspire us to go out and take on the world. Campbell (1988) mentions that the rite of passage and slaying the dragon themes can be found in ancient myths and help to provide insight on our lives. “Myths inspire the realization of the possibility of your perfection, the fullness of your strength, and the bringing of solar light into the world. Slaying monsters is slaying the dark things. Myths grab you somewhere down inside,” (Campbell, 1988, p. 184).

Summary

In conclusion, I believe that Flash animation is an engaging and relevant medium that should be taught in the art classroom. Teaching students how to use this medium to create their own thematic narratives could help to encourage higher-levels of thinking and utilize 21st-century skills. Transformation is a relevant theme that can be found in the popular Magical Girl genre. Transformation sequences symbolize the young heroine’s rite of passage and strength to slay the dragon alone. These themes are relevant to young people, especially high school students, because they are about to transition to college or work and will face new challenges alone without the support of their parents. In my opinion, we all go through personal transformations and creating thematic animations to illustrate these defining periods of our lives can be an empowering form of expression.

In the next chapter, I will discuss my research questions and the methods I will use to document the process of my studio-based thesis research.
CHAPTER THREE

Methodology

For my study, I created a brief Flash animation about a Magical Girl transformation sequence. Although there are many wonderful variations of Magical Girl transformations, most follow a certain conceptual plot as explained above. My specific research questions guiding my work are:

- What is the significance of the visual elements and symbolism of the transformation sequences within the three animations I referenced in creating my transformation short?
- What are the steps in creating a flash animation and what insights can I gain through creating and documenting my process?
- What implications might I derive for the classroom setting from this process?

I began my investigation by watching several Magical Girl transformations clips on YouTube, especially the scenes from *Sailor Moon, Revolutionary Girl Utena,* and *Dragonball Z.* I took visual notes of my favorite poses and character designs in my research sketchbook. I also studied the background paintings in the transformation sequences, so I could create my own backgrounds in Flash. Once I gathered enough information, I created a storyboard of my character engaging in a magical transformation.

Once the storyboard was completed, I created the magical backgrounds for my animation and created vector art from my original character Sulfur, the heroine in my *Volcanic Eruption* series. I created this series in my graduate studio classes, because I knew I wanted to use this character design for my studio-thesis animation project. I traced and digitally painted the character in Flash to be animated. I chose an instrumental techno song that had a stylish and fashionable sounding composition to complement the vibrant visuals of my short film. Finally when the animation was completed, I uploaded my short film on to YouTube for future use.
Timetables and Outcomes

My research and art production took place during a twelve-month period. When my work was completed, I created a brief twenty-five second animation about a Magical Girl transformation sequence. Throughout my investigation, I engaged in an intensive inquiry about the significance of the Magical Girl transformation. I recorded visual studies of film techniques, so I could replicate those elements into my own animation in Adobe Flash. At the conclusion of this study, I had created a beautiful, well-crafted film that I hope will inspire students to create their own transformation sequences in the art classroom.

Limitations

A potential limitation to my study was that I had chosen to focus my studio process on Flash animation instead of trying to cover the complete range of animation techniques, in order to derive potential classroom applications for that program. This means that teachers who do not have access to this program may find this study to be of limited utility.

Another limitation is that the Magical Girl animations that I have referenced (Sailor Moon, Revolutionary Girl Utena, and Dragonball Z) were all made in the 90’s, and there are many more recent animated series that I could have referenced instead of these three TV shows. However, for the sake of this study, I analyzed these older animations, because of their iconic legacy, contributions to the Magical Girl genre, and because of the huge influence they have had on me.
CHAPTER FOUR
Analysis, Creation, and Reflection

Analysis of Films

I began my research by viewing the three animations I have referenced throughout this paper: *Sailor Moon, Revolutionary Girl Utena,* and *Dragonball Z.* While I watched each anime, I paid close attention to the visual compositions of each hero and heroine’s physical transformation in order to draw inspiration for my own animation project. As mentioned earlier, most of these shows were created in the late 80’s and early 90’s, and I did not have any difficulty watching entire episodes on YouTube. While I watched each show online, I also took the opportunity to gather screenshots of the transformation sequences, so I could study the frames individually. I adopted this habit of gathering screenshots when I was an animation intern, and this practice has helped me to deconstruct scenes, learn how to draw strong poses, and study cinematic techniques. In all of the three shows, each transformation sequence is aesthetically pleasing and effectively illustrates the release of the magical girl and boy’s hidden power. These sequences were animated so beautifully, that they also contribute to each show’s iconic legacy and international success. Throughout this chapter, I will provide screenshots and visuals from each anime, and elaborate more on the visual significance of the scene.

**Sailor Moon**

The character, Sailor Moon has several transformations throughout the entire series, but for the sake of this study, I will only discuss her first transformation in Episode One. As mentioned in Chapter Two, Sailor Moon transforms into a warrior princess to defend the Earth from evil. As the leader of her group of soldiers, she has the longest and most aesthetically-pleasing transformation sequence. In order to activate her metamorphosis, she carries a magical make-up case and calls out a magical phrase. She raises one outstretched hand into the air, and the background melts into a serene cool blue setting with splashes of green and pink highlights. The background also has soft light bubbles which emphasize Sailor
Moon’s femininity and ethereal nature. Then her hand fades into a lighter silhouette in order to stand out against the darker background. The silhouette flickers from light blue to warm flushes of pinks and oranges in order to help the viewer differentiate the figure from the background painting. The sequence then transitions to a close-up shoot of Sailor Moon’s closed eyes. As she opens her eyes, the camera moves back, slowly revealing her face, neck and shoulders. The scene transitions again to show her entire pink-tinted form in the center of the cool blue background. Her ordinary clothes have vanished, but her elegant dancer-like poses prohibit the implied nudity from appearing overtly sexual.

As Sailor Moon begins to spin, her magical make-up case appears on her chest. Sparkling pink ribbons burst from the device and wrap around the magical girl’s torso. The ribbons take the form of a leotard and turn into the first piece of her uniform. Her body remains as a warm-colored silhouette to indicate that she is still in the process of transforming. Her hands appear next, fingers splayed out symmetrically in front of each other. As she lowers her arms closer to her face, pink ribbons wrap around her hands, before turning into white elbow-length gloves. The camera trails down to her feet, where ribbons wrap around her legs and turn into red knee-high boots. Finally, the ribbons appear around her waist, and turn into a fluttering pleated blue skirt. Sailor Moon raises her head and small beams of white light shot from her forehead and a sparking crown magically appears. As several pieces of jewelry accessories embellish her hair, the magical girl’s eyes open and she jumps into her signature battle pose. Behind her, a glowing white crescent moon appears to imply that Sailor Moon’s celestial power comes from the moon.

**Revolutionary Girl Utena**

The main character, Utena has two transformation sequences throughout the series, but I chose to talk about the second transformation, because it contained elements that I wanted to recreate in my own animation. The sequence begins with Utena entering the Rose Gate and walking towards an enormous spiral staircase that leads to a dueling arena in the sky. There is an elevator inside the center
of the staircase that will carry her to the arena to face other duelists. As Utena approaches the staircase, her friend Anthy awaits inside, before magically disappearing and leaving her rumpled clothes on the elevator floor. The scene transitions suddenly, showing Utena’s feet as she steps inside the elevator in front of Anthy’s forgotten clothing. As the elevator proceeds to rise, Utena faces the camera, wearing a determined expression on her face. Anthy slowly reappears in front of her, rising from the bottom of the scene. As her body rises, she appears in front of Utena naked, before her own magical red gown covers her lithe form. The scene transitions again to show a close-up on Anthy’s face in front of a black background. Her eyes are closed and she raises her hands to perform a magical spell that will transform Utena’s outfit into a Prince-like uniform. Utena’s body becomes monochromatic shades of red and her clothing vanishes. Anthy’s hands travel down her chest, arms, and waist, each time snapping back to reveal parts of Utena’s uniform. Then the scene transitions to show a close-up of Utena’s face, as she opens her eyes and looks directly at the viewer. The sequence ends with the two characters standing together as black silhouettes, before being revealed in color in the dueling arena. Rose petals flutter in front of them, to emphasize Utena’s princely elegance and beauty.

**Dragonball Z**

Finally, I will conclude my film analysis with Gohan’s transformation sequence in *Dragonball Z*’s Sixth Season. *Dragonball Z* is not within the Magical-Girl genre, but Gohan’s transformation displays magical girl-like traits (ex. Having a hidden power and having the ability to physically transform into a stronger being in order to battle evil opponents). In the series, the main characters have the ability to transform themselves into powerful beings called, *Super Saiyans*. Super Saiyans have blond hair that stands upright, green eyes, and emit a golden aura of energy. Season Six told a powerful *David and Goliath* inspired narrative about how Gohan had to face a monstrous villain alone, because he was the only one strong enough to defeat him. In the beginning of Gohan’s transformation scene, Gohan already possessed the ability to turn into a Super Saiyan. The sequence begins with Gohan witnessing the villain,
Cell kill one of his friends in a desert valley. The boy’s shocked expression is illustrated through multiple close-up shots of his face. Then the camera pulls back to reveal Gohan staring numbly into space, and a stark black background appears to help emphasize Gohan’s despair. Suddenly, a thin diagonal red line shoots across the black background to imply Gohan has reached his breaking point. The line widens, filling the entire background and appears to look like abstracted angry flames. I choose to interpret this to be a powerful visual metaphor of the rage that had flooded into the young warrior’s system.

As the camera moves back, Gohan clenches his fists and releases a furious scream. The background flickers from a solid red, to white, to black, before changing into a golden white aura that engulfs Gohan’s body. As Gohan continues to scream, the rocks beneath his feet began to rise and the wind blows clouds of dust into the air. As the sky darkens, electrical charges surge around his body and his already blond hair grows stiffer and stands up higher. The muscles in his arms and legs bulge out and become more defined. The dust clouds swallow up his transforming form, and after a moment of suspense, part to reveal the boy in his new Super Saiyan Two form. In this form, Gohan appears to be physically older and maintains an intense and stoic demeanor that he never wore when he was in his ordinary form.

Visual Elements

Watching multiple film screenings of Magical Girl transformations, allowed me to acquire an in-depth understanding of how different cinematic techniques can convey emotion and enhance the experience of witnessing a character’s metamorphosis. I appropriated many of these elements into my own animation, and I will begin by listing and providing imagery of those elements, before I move on to explain the rest of my own production process. I will begin with Sailor Moon, because I referenced this anime the most while I created my cut-paper series, Volcanic Eruption I and POWER.

Sailor Moon. As I mentioned earlier in my film analysis, Sailor Moon’s transformation is the longest and most aesthetically pleasing transformation sequence. The first element that I referenced was the
character’s brief transition from her normal everyday settings to the magical background where her transformation occurred. Once the process began, it happened in a sequential order, starting with her eyes and then descending down towards her feet. The scene concluded when Sailor Moon’s entire form was shown standing in the center of the magical background in a dynamic final pose. I also noticed that throughout her transformation, the animators used sparkles to enhance the magical action and create a more ethereal atmosphere. When I created my animation, I used an everyday opening scene, the same sequential order of body parts, final signature pose, and sparkles as one of the special effects. Lastly, I referenced *Sailor Moon’s* simplified magical backgrounds to recreate the backgrounds for my Flash animation.

Here are the following screenshots that I referenced from *Sailor Moon*:

Figure 18. Sailor Moon, 1992, screenshot.

Figure 19. Sailor Moon, 1992, screenshot.
Figure 20. Sailor Moon, 1992, screenshot.

Figure 21. Sailor Moon, 1992, screenshot.

Figure 22. Sailor Moon, 1992, screenshot.
Revolutionary Girl Utena. While watching this television show’s transformation sequence, I observed that the animators chose to use more simplified visual elements to convey Utena’s magical change. I referenced three of the following elements from this television show: Utena’s monochromatic nude form as she transforms, the usage of a black magical background, and the motion of her hair in one sequence. I interpreted that the animators chose to color Utena’s nude form with shades of red, to help the viewer’s understand that she is in the process of assuming a new identity—the role of a heroic prince. I also appreciated how Utena was placed in front of a black background. This simple visual element served to act as a signal of indication that a magical moment was about to occur. Finally, I enjoyed the quick movement of Utena’s pink hair when it fluttered around her face when the first part of her transformation occurred. While I created my animation, I used a black background to enhance the beginning of my opening scene, used a palette of monochromatic colors for my character’s pre-transformative state, and appropriated the cascading hair sequence.

Below, are the following screenshots that I referenced from Revolutionary Girl Utena:
Finally, while I studied Gohan’s transformation, I appreciated his physical transformation from his normal state to his Super Saiyan Two form. In his normal state, Gohan has jet-black hair and black eyes. When he transforms, his eyes turn light green and his hair grows longer and becomes blond. In my animation I was inspired to design my character to have a normal state and a magical state just like Gohan. I also gave her a serious expression to help emphasize that her power has been unleashed just like how Gohan’s was when he first transformed into a Super Saiyan Two.

Here are two examples of Gohan in his normal state and his Super Saiyan Two state:
Figure 26. Dragonball Z, 1997, illustration.

Figure 27. Dragonball Z, 1997, illustration.
After regarding each of the three transformation sequences, I found that I gravitated towards the close-up scenes of each character’s faces, strong usage of color contrast, and each character’s dynamic silhouettes. I appreciated Sailor Moon’s warm silhouette against the cool magical backgrounds. I enjoyed Dragonball Z’s usage of a normal and magical state. Lastly, I liked Utena’s monochromatic form as she was in the process of transforming. I found that writing down what happened in each sequence helped me to deconstruct the scenes more effectively. Deconstructing the scenes allowed me reflect on how the animators were able to make the transformations flow so smoothly.

**Creation of Work**

With this research in hand, I was able to move on to the next step of my conceptualization process: character development. Once I had selected my favorite elements within my film references, I began to conceptualize the character design for my own magical girl heroine. I used Sulfur, the heroine in my *Volcanic Eruption* series as my appointed magical girl. I chose her because I found her design to be aesthetically-pleasing and she had several magical girl characteristics (ex. Long hair, unusual hair and eye color, exotic outfit). I also used the illustrations from the *Volcanic Eruption I* to help me create the digital character designs and the magical backgrounds in Adobe Flash for my scenes.

I began my process by rendering digital copies of the five poses from my cut-paper series, *Volcanic Eruption I* into Adobe CS5 Flash. This was a meticulous process that took several months of preliminary work. The first thing that I had to do was select the color pallet that I would use to digitally paint my character. Using the eyedropper tool in Flash, I was able to select the most accurate renditions of color from Sulfur’s design from *Volcanic Eruption II*. I also had a slight learning curve with Flash and I had to re-familiarize myself with Flash’s interface. It was difficult at first, and I created many experimental clips before creating the actual footage. I also used my two Flash technique books, *How To Cheat in Adobe Flash* and *Flash Cinematic Techniques* to help me understand how to reproduce the
desired visual elements of my referenced Magical Girl animations. I also viewed flash tutorials online to learn how to recreate simple effects such as blinking and a sparkle design.

I broke my animation down into seven short scenes, so that the workload would be more organized and manageable. I started with the simple scenes first, to build more understanding and confidence, before moving on to the more elaborate scenes. Using my color pallet, I traced and digitally painted my character and some of the backgrounds from my Volcanic Eruption series in Flash. I tried to make my digital renderings of Sulfur look as vibrant and well-crafted as possible. Although I mentioned earlier, that I referenced the poses from Volcanic Eruption I exclusively, I kept a small research sketchbook of the poses drawn in pencil, and wrote short descriptions of the action that the figure(s) would partake in. Here is an example of my sketchbook that describes the actions of two major sequences:

![Sketchbook Page](image)

Figure 28. Danielle Z. Yarbrough, Research Sketchbook Page, 2014, graphite on paper.

While I animated my seven scenes, I also searched for a royalty-free instrumental song that would complement my short film. I found the perfect track called, Glitter, on a website, called FreePlayMusic.com. I wanted a track that sounded feminine, chic, and glamorous, because all of the Magical Girl video compilations I found online were always accompanied by high-energy dance/pop music.
After I completed all of my seven scenes in Flash, I exported them into movie files. Flash does not have the ability to upload movies directly online, so one must export the media into other file formats. I chose to use the QuickTime movie format, because it is a great video editing program that has the ability to edit clips, add music, and upload media on to the Internet. I also observed that my Internship director frequently used QuickTime to show me storyboards and completed scenes. I used QuickTime Pro, a more advanced version of the program to compile my scenes and music together. With this program, I was able to trim my musical selection and my scenes, so that they flowed perfectly together.

Once I was satisfied with the completed QuickTime film, I uploaded and published it on to my personal YouTube account for future use and viewing pleasure. My video can be viewed online under the following link: https://www.youtube.com/watch?v=Z5jExJkrdtg.

Here are some of the screenshots of each of my seven scenes that can be found in my animation, POWER:

Figure 29. Danielle Z. Yarbrough, POWER, screenshot 1, 2014, Flash Animation.
Figure 30. Danielle Z. Yarbrough, POWER, screenshot 2, 2014, Flash Animation.

Figure 31. Danielle Z. Yarbrough, POWER, screenshot 3, 2014, Flash Animation.
Figure 32. Danielle Z. Yarbrough, POWER, screenshot 4, 2014, Flash Animation.

Figure 33. Danielle Z. Yarbrough, POWER, screenshot 5, 2014, Flash Animation.
Figure 34. Danielle Z. Yarbrough, POWER, screenshot 6, 2014, Flash Animation.

Figure 35. Danielle Z. Yarbrough, POWER, screenshot 7, 2014, Flash Animation.
Reflection of Process

My animation is an amalgamation of different elements of my Volcanic Eruption series and fragments of my personal life. I named my animation POWER, because I wanted it to state what my character would achieve when she transformed. The title was also inspired by the frequent usage of the word “power” in many of my favorite 90’s American and Japanese animated television theme songs. My favorite animation style is 90’s cartoons, and obtaining power is a reoccurring theme within many of these old shows. This is also one of the main reasons why I selected Revolutionary Girl Utena, Sailor Moon, and Dragonball Z to be my references, since they are all 90’s cartoons.

The opening scene reveals Sulfur (in her normal state) inside a high-end retail boutique. The setting is a visual reminder of my work experiences in several retail companies. I learned many strong values when I worked in retail, and one saying that I will never forget was spoken to me by a wonderful manager of mine. She told me that in life, ‘you can either be powerful or powerless’. This statement resonated within me, and I wanted to explore that philosophy within my Magical Girl transformation animation. In the opening scene, Sulfur’s earring begins to sparkle and she closes her eyes, sensing that her transformation is about to occur. The scenery fades away to reveal a black background, emphasizing that a magical moment is about to happen.

The second scene begins in the same black background, but this time it shows the magical golden earring placed centrally in the middle of the frame. As it slow pans forward, it begins to sparkle and is engulfed entirely in a white fade-out technique. The third scene reveals the red and cream–colored magical background that will be used throughout the rest of the sequential body transformation sequences. I initiated the magical transformation, by revealing Sulfur’s eyes. Her brown pupils have turned yellow and her reddish-brown eyebrows become aqua-blue. She blinks once, before the scene quickly transitions to the fourth scene. In this scene, the woman’s raised arms have been colored
entirely with monochromatic shades of yellow. The golden hands disappear, and in their place appear hands wearing shiny black leather gloves and red nail polish.

I chose to make Sulfur’s skin golden in her pre-transformative state, to represent the golden relics that were in the first and second panels of Volcanic Eruption II (Figure 6 and 7). Although the relics in that series were depicted as antagonistic forces, they have been a reoccurring theme in many of my personal bodies of artwork. Relics were always depicted as golden, hairless female entities that were powerful and indestructible. They represented death and resurrection, and whenever I was about to go through a major transition in my life, they emerged into my artwork. My main character Sulfur is also a relic, but she is a visually representation of a relic’s more evolved form. However, she still retains attributes that reveals her true nature of a relic (ex. her piercing golden eyes, clawed fingers, and incredible strength). She wears a jet-black body suit that acts as protective armor against other relics and volcanic lava. In my Volcanic Eruption series, I emphasize the relics’ and Sulfur’s dualistic nature through the usage of natural symbols that also has dualistic identities. These elements are: volcanoes and the element sulfur. I also use the visual symbolism of my favorite colors, red, gold, black, and aqua-blue to describe Sulfur’s personality, but I will delve deeper into the significance of these visual symbols later in this chapter.

The fifth scene transitions suddenly to reveal Sulfur’s head, out-stretched arms and torso. As the magical sparkles surround her, her magical outfit is revealed and her aqua-colored hair grows longer and cascades out from behind her. While I was designing this scene, I appropriated the visual elements that I referenced from Revolutionary Girl Utena and Volcanic Eruption II. I created her form to resemble the silhouette of a volcano, to serve as a visual reminder of her volcanic origins. In the sixth scene, the profile of her golden legs lower into the scene, before disappearing and revealing her legs covered in shiny black tights and black high heels. Finally, in scene seven, the background changes to a beautiful bright orange starburst design. The newly-transformed Sulfur appears shortly after, places her hands on
her hips and stares up at the viewer with a confident smirk. Her long aqua-blue ponytail trails behind her and tiny sparkles flicker insistently around her body to emphasize her powerful magical state.

**Visual Symbolism**

Color and nature play a key role in my artwork. I used my favorite colors when I created Sulfur in the *Volcanic Eruption* series and *POWER*. I use symbolism from nature to help describe my character’s personalities better, which in turn helped me to understand myself better. Ever since I became a graduate student, I have had dreams of erupting volcanoes and golden pools of blistering brimstone. My favorite colors are aqua-blue red, gold, and black, and I will take a brief moment to explain why these four colors and two nature elements are visually significant in my artwork.

**Aqua-Blue.** I use aqua-blue for my character’s hair color, because I wanted her to appear to look like a fantasy character. Many Japanese animations—including the Magical Girl genre, color their main characters’ hair in different vibrant shades to indicate their central role in the story. I also made Sulfur’s hair aqua-blue to represent the inner calmness she has within herself. "[Aqua-Blue] calms and balances the mind and the emotions," (Empower-yourself-with-color-psychology.com, 2014, para. 7). While the primordial relics were violent and controlled by their raw emotions, Sulfur has the ability to remain calm and level-headed despite the chaos surrounding her. When I look at this color, it reminds me to stay calm despite the stressful environment of work and school.

**Red.** I use red in my artwork to represent confidence and vitality. "Red is energizing. It excites the emotions and motivates us to take action. It signifies a pioneering spirit and leadership qualities, promoting ambition and determination," (Empower-yourself-with-color-psychology.com, 2014, para. 1). In my animation, *POWER*, Sulfur is surrounded by a red background to symbolize her self-assurance in her abilities as a magical being. I also use the color red in my backgrounds and Sulfur’s make-up to reveal her dualistic nature as a beautiful magical girl and a dangerous relic. Her magical form exists solely to help her fight her opponents in hand-to-hand combat battles. This color reminds me to stay
strong, be confident in my own abilities as a woman, and approach challenges and obstacles with confidence and tenacity.

**Gold.** I use the color gold in *POWER* to represent achievement. Sulfur’s eyes, accessories, and her pre-transformative state are gold to symbolize her status as royalty. In my *Volcanic Series*, she eventually becomes the Relic Queen, using her intelligence and overwhelming strength to fight her way to the top. "The color gold is the color of success, achievement and triumph,” (Empower-yourself-with-color-psychology.com, 2014, para. 1)." The color gold reminds me to envision the triumph of achieving my future goals, whenever I feel worried about the future.

**Black.** This is my favorite color, and Sulfur’s magical outfit is black for two reasons: The first reason is that the color black represents the professional attire I wore, while I worked in retail. I appreciate my years working in retail, because the experience taught me a plethora of transferable skills, allowed me to save money for graduate school, and learn about myself. Sulfur wears black to remind myself never to forget that chapter of my life, as I move on to a new career as an art educator. The second reason Sulfur’s magical outfit is black, is because black represents ambition. "Black implies self-control and discipline, independence and a strong will, and...an impression of authority and power," (Empower-yourself-with-color-psychology.com, 2014, para. 3). I know that my graduate school experience has helped me to become more disciplined and more focused to achieve my goals. When I look at the color black, it reminds me that I am fueled by my ambition to become a figure of influence, power and authority. I am confident that I will influence and motivate my students to pursue and achieve their dreams of success when I become a professional art educator.

**Volcanoes.** As I mention earlier, Sulfur’s silhouette is fashioned to look like a volcano in figure 33, to reiterate her volcanic origins. Volcanoes have been a reoccurring theme in my graduate studio artwork, because they are such powerful metaphors of overcome obstacles and facing danger. “Volcanoes themselves can be viewed as a sort of challenge symbol. Their formations are mountainous, and as such
they represent the upward challenge our lives sometimes present”, (symbolic-meanings.com, 2008, para. 3). Both versions of Sulfur in the POWER animation and the Volcanic Eruption series represent my decision to be powerful and make a stand against adversity and challenges. In all three of the animes I have referenced, the only reason Sailor Moon, Utena, and Gohan transform into their magical counterparts is to fight. Like active volcanoes, they too erupt and use their amazing powers to defeat their dangerous opponents. In POWER, I use Sulfur as a visual metaphor of how I felt when I transitioned out of retail and entered graduate school. I felt like I too erupted in order to spur on a great transformation within myself.

Sulfur. Finally, I named my character Sulfur, because sulfur is known to be an ancient symbol of catharsis. “Sulfur was widely regarded as an agent of purification,” (Walker, 1988, p. 525). In the Volcanic Eruption series, one reason why Sulfur looks more human-like than the rest of her relic counterparts is because she wants to be better than what she is. I created her to represent my desire to better myself as a person, an artist, and soon as an educator. The underlying message within my animation POWER is that Sulfur transforms so she can defeat the relics of the past and initiate the cleansing process of new beginnings.

In my final chapter, I will discuss how I will implement what I have learned from this studio experience for young people, and reiterate how Flash animation can benefit students in the art classroom.
CHAPTER FIVE

Classroom Implementation and Conclusion

Implementation

My secondary observations and student teaching experiences have provided me with an enormous amount of insight about how Flash can benefit students in the classroom. Last semester, I observed a high school that specializes in computer animation. During my three visits, I was able to observe an art class that taught Adobe Flash exclusively to 12th grade students. I shared animation background with the art educator there, and she invited me to talk to her students as a guest speaker for career day. Many of the 12th graders were interested in studying animation in college, and so I talked to them about how Flash helped to influence the animation industry.

After my talk, the teacher began her class by teaching her students a Flash technique called, motion-tweening. Motion-tweening comes from the animation terms, key frames and in-betweens, and is a common production step within Flash animations. The key frames are the first and last frames within a sequence and determine the initial and final action. In-between frames serve as the transitional movement that happens between two key frames. One of the best features about Flash is its capability to create the in-betweens for you. This process is called motion-tweening or simply tweening for short.

In the lesson, students were being taught how to create basic characters and make them move horizontally across the screen using motion-tweens. Some students were having trouble understanding how to accomplish this, and it was so exciting to assist the teacher and guide them through the process. All of the students seemed very grateful for my help and when the class was over, I gave the teacher and some of her students additional Flash resources. On the last day of my observation visits, the art teacher showed me a DVD of previous student-made Flash animations, and I was blown away from the level of craftsmanship and creativity within many of the sequences. One student created an anime-style action cartoon that was reminiscent of Dragonball Z, and the teacher told me that he taught himself how to
create the advanced special effects within his amazing short-film. My high school observation was such as blessing, and I was grateful that I was able to share my internship achievement with young people.

My current involvement as a student teacher in a middle school has also provided me with so much clarity about how Flash can be an excellent teaching tool for secondary students. Although the school does not have Adobe Flash on its computers, I have been teaching each grade a unit on basic animation. I have taught the students how to create Phenakistoscopes, which was one of the simple optical devices that I talked about in Chapter Two. I am currently teaching a phenakistoscope lesson to two 6th grade classes, and this lesson has been an excellent way to teach students the concepts of key-frames, in-betweens, and storyboarding.

Most of the students have been very receptive to this project, but I have had some students who have struggled with this assignment. The primary reason seems to be from a lack of understanding that their drawings must show gradual transitions in order to create the illusion of movement, but most of the time students struggle simply because of fear. It is this sensation of fear that I have encountered within some of the 6th, 7th, and 8th graders that has led me to believe that Flash would benefit them immensely. There have been many times that students have tried to render a drawing and when the picture did not turn out the way they wanted it to be, they get frustrated, give up, and utter the accursed phrase, ‘I can’t draw’. It has been difficult to alleviate their frustrations, but I have noticed that middle school students appreciate being provided with an assortment of reference visuals. I have observed how many students in all three grades have solved their visual problems by tracing figures or going online and viewing cartoon references and tutorials.

Tracing images is a technique that is used all the time within the animation industry. In fact, in traditional cel animation, animators use light tables to draw and trace their figures. Light tables are specialized desks that have a glass screen with a soft white light that shines through and makes paper become translucent. Animators can stack multiple drawings on top of each other, so that they can their
see their character’s progression of movement. Flash has a feature similar to a light table within its interface, called ‘onion skin’ that allows the user to see through all of their frames while they are creating an animated sequence.

I have observed that tracing figures and cartoon characters is a comforting drawing method for both general and special education students. I do not feel that tracing should replace observational drawing entirely, but this technique could be very beneficial to help students learn how to create figures within Flash. I have seen my animation director do this when he rendered his paper drawings into digital characters for Kasha and the Zulu King, and I traced my own figures from the Volcanic Eruption series on to Flash. It is vital to have visuals to reference while creating Flash animations, because it can be very difficult to construct figurative work without them. I ran into this problem constantly, while I was engaging in the process of preliminary Flash sequences. This led me to create Volcanic Eruption I, so I could trace and render the figures into Flash.

I have also noticed that many of the middle school students have a fear of making mistakes, and are very hesitant to make bold visual decisions. This problem could be alleviated through Adobe Flash’s ability to undo mistakes, multiple drawing layers, and sophisticated pencil and paintbrush editing tools. There are also many accessible Flash tutorials online that students can partake in to learn new skills and boost competency with this incredible medium. Completing tutorials is an excellent differentiation tool to assist students who have different levels of knowledge and proficiency using Flash. When I took my undergraduate graphic design courses at Clark Atlanta, most of my course work consisted of completing advanced tutorials from various sites.

Some of the middle school students I have encountered have walked into the art classroom uninterested in creating artwork, because they do not feel it relates to their life. However, this younger generation is inundated with new technology, social media, and popular culture. Providing students with animation lessons that incorporate their favorite interests can help students build an appreciation for
the Visual Arts and build important computer skills. As a future art educator, I feel that it is important to provide students with an art education that infuses traditional art-making skills with technology. Teaching students how to create their own tradigital Flash animations can also help students to appreciate the labor intensive process that this medium requires and can encourage them to trust in their own drawing abilities.

**Conclusion**

As I conclude this studio-based thesis, I must refer back to my initial research questions that have guided me throughout my study:

- What is the significance of the visual elements and symbolism of the transformation sequences within the three animations I referenced in creating my transformation short?
- What are the steps in creating a flash animation and what insights can I gain through creating and documenting the process?
- What implications might I derive for the classroom setting from this process?

Throughout my thesis, I discussed the visual significance and the symbolism of the Magical Girl transformation. I interpreted the meaning of the hero/heroine’s transformation to represent two universal themes: *rite of passage* and *facing the dragon alone*. It is only when the magical girl or boy changes into their magical adult-like form and face their final foe by themselves that their hidden powers are released and they are able to overcome their seemly unstoppable adversaries. The symbolism within the three animes I referenced was also very important, because I appropriated my favorite visual elements from each sequence and incorporated them into my own transformation short.

When I worked on my preliminary screenings of *Sailor Moon*, *Revolutionary Girl Utena*, and other Magical Girl animes, I noticed that they all followed a systematic transformation format. They all initiated the magical change by beginning with the eyes and descending down to the character’s feet. I used these elements to create an animation that depicts the authentic and stylized poses that can be
seen in animes within the Magical Girl Genre. I feel that I accomplished this, because I was given a very nice compliment by someone while I was working on POWER in the Digital Aquarium, a technology lab on the GSU campus. He told me that my animation reminded him of Sailor Moon, and I was ecstatic that he drew that connection without me telling him!

The production process of creating a Flash animation can be lengthy and very detailed-oriented. There are many ways to create characters, but I chose to follow the methods that I learned while I was an intern at Turner Studios. My director drew all of his characters on to paper first, before uploading and rendering them into Flash. I chose to take that step further by creating enlarged illustrated storyboards in order to help me trace my figures better and to continue to build up my studio portfolio. Making my characters and backgrounds from my studio work also inspired me to incorporate my favorite colors and natural symbols, further connecting my animation to my previous studio works.

I also gained a substantial amount of insight on the importance of knowing how to export a Flash animation and what programs are the best for converting files into web-friendly videos. QuickTime Pro was the most helpful video editing program for me, but I will continue to experiment with other media programs that can export Flash media onto the Internet to build proficiency. I must also teach myself how to use the latest version of Adobe Flash, so I will stay up-to-date on this wonderful medium and create animations that will have better resolution sizes and more clarity for the web.

Finally, I derived several classroom implications from this study. Adobe Flash is highly relevant to students because it incorporates interdisciplinary subjects that can allow students to synthesize prior and new knowledge, encourages computer literacy skills, and can function as a platform for students to contribute to contemporary visual culture. My animation, POWER is the first of many digital artworks that I plan to create and share online. In a strange sense, every time I watch my short film, I feel as if I have left behind a digital footprint...an electronic relic that will forever reside amongst the sea of videos on YouTube. I have spent years perusing through YouTube videos, gathering and appropriating
reference materials from my favorite animations, and I hope that my animation embodies the essence of the 90’s cartoons and the Magical Girl animes that I watched so fondly in my youth. As I mentioned in Chapter Four, 90’s cartoons is my favorite animation style and all of my favorite shows (including *Dragonball Z, Revolutionary Girl Utena, and Sailor Moon*) all shared the recurring theme of obtaining power through transformation. As a child of the 90’s, I remember feeling empowered after I watched my favorite Saturday morning animated shows and video cassette tapes. It was those feelings of empowerment that inspired me to become an Art major, intern at Turner Studios, and finally pursue a Master’s degree in Art Education.

And now with my graduate experience quickly coming to an end, I look back and appreciate the arduous journey that I have been on ever since I changed my major to Art. I know that there will be more volcanoes to climb in the future, but I feel confident that my undergraduate art degree from Clark Atlanta and my master’s degree from Georgia State have helped me to release my power and equipped me with the skills I need to transform my life and the precious lives of young people.

In my mind’s eye, I stand on top of the tallest volcano, and look out at the new horizon. May my future as an art educator be glorious and filled with success and triumph!
REFERENCES


Sailor Moon Transformations
Published on May 28, 2011
http://www.youtube.com/watch?v=HsX0VHMw_Z8

Gohan Goes SSJ2 for the first time
Published on July 11, 2011
http://www.youtube.com/watch?v=gUuzYvTltNk

Revolutionary Girl Utena "Absolute Destiny: Apocalypse"
Published on October 4, 2007
http://www.youtube.com/watch?v=J3e2GwpZ7ug

Magical Girl Anime History 1 (1966-1973)
Published on November 26, 2012
http://www.youtube.com/watch?v=YY5gHh89FgE&list=PL8QJ-4cSuBotj_QP6uHF-4aYVBk6x6l-1&index=1

Magical Girl Anime History 2 (1974-1983)
Published on November 30, 2012
http://www.youtube.com/watch?v=Q5W_Hle-Sto&list=PL8QJ-4cSuBotj_QP6uHF-4aYVBk6x6l-1

Magical Girl Anime History 3 (1984-1988)
Published on January 10, 2013
http://www.youtube.com/watch?v=XcLqPg4u5Z4&list=PL8QJ-4cSuBotj_QP6uHF-4aYVBk6x6l-1

Magical Girl Anime History 4 (1990-1993)
Published on February 21, 2013
http://www.youtube.com/watch?v=FbAfa0olGOY&list=PL8QJ-4cSuBotj_QP6uHF-4aYVBk6x6l-1

Published on April 21, 2013
http://www.youtube.com/watch?v=JUPRXazNW6Y&list=PL8QJ-4cSuBotj_QP6uHF-4aYVBk6x6l-1

Magical Girl Anime History 6 (1995-1996)
Published on June 22, 2013
http://www.youtube.com/watch?v=0mx2K8BHsrM&list=PL8QJ-4cSuBotj_QP6uHF-4aYVBk6x6l-1

Magical Girl Anime History 7 (1997-1998)
Published on August 12, 2013
http://www.youtube.com/watch?v=MhiDfsnjvpE&list=PL8QJ-4cSuBotj_QP6uHF-4aYVBk6x6l-1

The Making of The Hunchback of Notre Dame (2/2)
http://www.youtube.com/watch?v=pe7WRYNW6h4
Published on June 15, 2013
Behind the scenes of Disney's 34th full length animated feature.


Flash Tutorial | How to animate a twinkle or sparkle effect Published on March 30, 2013 http://www.youtube.com/watch?v=TtuOjOP0xjU


POWER
Published on April 8, 2014
https://www.youtube.com/watch?v=Z5jExJkrdtg