

Compositing Brought to Life

A Liberal Arts and Engineering Studies Senior Project

By

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Introduction

For the first 20 years of my life, I had no idea what I wanted to do or be when I grew up. I applied to Cal Poly as an Earth Sciences major just because 1) I thought that it was Biology 2) because it sounded so broad that I didn't really have to decide what I wanted to do with my life and 3) because unfortunately for me, there was no undecided option. After discovering that Earth Sciences wasn't what I thought it was, I had to quickly figure something else out. The only other major that captured my interest was Physics. I had enjoyed my Physics classes in high school and, to be honest, who wouldn't want to major in roller coasters? I must admit, I also might have chosen the major because one of my favorite characters from the TV show *Lost*, Daniel Faraday, was a physicist. Great reasoning, I know.

After two years of studying Physics, I still felt like something was missing. I was starting to feel like many students were beginning to figure out what they enjoyed about physics and what they wanted to do with it after graduating. I finally grew tired of telling anyone who asked, that I still had no idea what I wanted to do, so I made my way to the career services office on campus and took a personality test. They helped me figure out what it was that was missing from my curriculum. I was missing the creative thinking and expressiveness of the Liberal Arts. Although that made perfect sense to me, as I have always been interested in fine arts, I did not want to give up on math and science, as they have always been my strong suit. Fortunately for me, there was a new major forming on campus, Liberal Arts and Engineering Studies. It was the perfect combination that catered to both my interest in the arts as well as the aptitude I possess for math and science. After career services recommended Liberal Arts and Engineering Studies as a major, they suggested some great careers paths, such as a career in the gaming industry, but I had my heart set on something else. I have always loved movies and have always been interested in the process of making them. I knew being an actress wasn't really in the cards. Neither was screenwriting, but visual effects was perfect. I have always been fascinated by visual effects. Creating a world in which characters could come alive seemed so magical. Ever since that meeting with career services, my passion and interest for visual effects has only grown.

Although I did find the perfect major at Cal Poly, there were still a few disadvantages to being a part of a fairly new interdisciplinary major. For instance after four years here at Cal Poly, I have to admit, I feel that I am somewhat lacking the required skills and hands on experience to confidently enter the field of Visual Effects. Yes, Cal Poly's motto is "Learn by Doing", and yes I did get to do a lot of hands on learning, but Cal Poly just isn't a visual effects school. I figured there was only one way to fix this problem and that was to learn by doing, of course! I wanted to use my senior project as a tool to learn more about visual effects, specifically compositing, as well as to composite a few scenes and create a few effects of my own. I really just wanted to walk away from college having something I could confidently show to future employers. A great

demo reel could ensure that I land my dream job as a visual effects technician. That was why I decided to make a demo reel as my senior project.

Deliverables and Project Goals

During the LAES's introductory courses, LAES 301 (Project-Based Learning in Liberal Arts and Engineering Studies) and LAES 302 (Advanced Project-Based Learning in Liberal Arts and Engineering Studies), we were required to do a mentor report, which encouraged us to reach out to industry professionals and find out what it would be like to work in the field we aspired to be in. Through this project, I had the privilege to meet with two professionals who are currently working in the visual effects industry: Compositing Supervisor for Crazy Horse Effects, Brian Sales and Visual Effects Supervisor for The Resistance, Phillip Moses. Meeting with them and getting a glimpse of what it means to work on effects and compositing for films really caused my excitement to grow, even when Mr. Moses educated me more about how difficult an effects artist's life really is. Both sent me a link to their company's demo reels and I was blown away particularly by Crazy Horse Effect's 2013 reel.

According to Visual Effects in Film and Television, the main objective of visual effects is to suspend the audience's disbelief by manipulating perception (pg# 9). Much like a magician might reveal how he pulled off one of his magic tricks, a demo reel demonstrates how the artists have accomplished manipulating the viewer's perception. The demo reels that were shared with me not only showed the audience how they put together various scenes in major motion pictures as well as a few popular TV shows, but it was also very exciting to watch even if you did not know anything about visual effects. CHE's (Crazy Horse Effects) reel really inspired me to look further into compositing. It also inspired me to want to create my own reel. Although it would have to be on a much smaller scale, I still wanted to create a reel that was just as entertaining and exciting: one that will not only promote myself in the field after graduation, but will also inspire others in the major who are also interested in the same field.

When thinking about what I should use as content for a demo reel, I really only had one thing in mind. How can I incorporate dancers? For the past several years I have been very passionate about two things, dance and learning about visual effects. What better way to fuse my two passions than to shoot dancers in front of a green screen and then composite in a scene behind them?

The main goal/deliverable of my senior project is a short demo reel that demonstrates everything I have learned about compositing over the past nine months. A sub-goal was to also help LAES find a way to verify the success of projects similar to my own, projects that are a bit more subjective when it comes to an individual's creative ability mixed with technical skills.

Literature and Technology Review and Overview

Since I am the first student in LAES to create a demo reel with a focus on compositing, there were no other senior projects for me to compare mine to. There are, however, many professional and student demo reels that focus on compositing. I spent a lot of time watching these reels to get a better understanding of how I should go about creating my own. Most of the videos I saw took something computer generated and integrated it into the real world whereas I took things from the real world and put it into a fully computer generated scene.

Since resources at Cal Poly pertaining to my project are limited, I ended up having to teach myself many of the skills required to create a successful demo reel. There were a lot of things I had to learn in order to accomplish this task.

The Basics

First, if my focus was to be on compositing, I had to research exactly what compositing was. The simplest description I found online was that “Compositing is the art of combining visual elements into one seamless shot” (Hedin, 2010, pg# 2). Later on, I discovered that compositing is much more than that. “Compositing is to be regarded as more than simply the combination of elements into a single image. Rather, it is the process of integrating elements into a single, cohesive frame” (Moses, Dec 4th, 2014). This means that it would not be enough to just throw each element in a scene and call it a day. I had to really pay attention to details such as how a light source might hit each element in the scene and how each element fits in with the rest of the scene.

I also had to research some of the basics of film, visual effects and compositing. Mitch Mitchell’s, Visual Effects in Film and Television, although a little outdated, was a great resource when it came to general visual effects language and techniques. Some of the film courses offered at Cal Poly, such as Art 383 (Digital Video), Hum 341 (Cinematic Process), and ENGL 371 (Film Styles and Genres), were also a huge help when it came to filming and setting up a shot, composition wise.

Green screen

Learning how to properly use a green screen was crucial in the success of all other aspects of my project. According to Visual Effects in Film and Television, there are three rules when using a green screen.

1. Keep actors, or in my case dancers, at least ten feet in front of the screen. This way there would be a greater differentiation between the screen and the dancer.
2. The green screen needs to be lighter than the subjects being filmed and as evenly colored/lit as possible. You want to try and make the screen a consistent shade of green

so that it will be easier to pull that color out of your footage later. In order for this to work, the person you are filming cannot wear that shade of green, or really any green at all in order to get the best results.

3. The entire look of the scene should be matched. This means that the angle at which you film should be the same in both the background shots, or elements, and the foreground actor. The lens should be the same and the angle and intensity of light should be the same in order to composite together a cohesive and seamless shot.

It was a little easier to follow the first two rules, even when working in such a small space and without a proper light kit (I used a couple of floor lights to light my screen). The third however was a bit more difficult. It was much harder to try and follow since I was using both human subjects and toys in my scene along with many other elements I did not even film. To get the same angle and lighting was nearly impossible.



(Figure 1: Green Screen)

Since I wanted to film dancers from head to toe, I also had to find a way for them to dance on some sort of green screen without wrinkling or disturbing the screen behind them. Any shift in the color of the screen caused by wrinkles, shadows or movement, would make the already daunting and difficult task of trying to remove it from the footage even more difficult. My solution for this was to buy a small piece of plywood from Home Depot and paint it green in order to create a hard green screen floor, which can be seen in the above image. In order to get the color of my floor and the screen as close as possible, I just walked into Home Depot with the screen and asked if they could mix paint that was the same color. I have to say they did a pretty good job of matching the color, which made taking out the green a little easier.

The process of removing the green, or any color for that matter, from footage is called keying. A more technical definition of the word is that it is “defining transparency by a particular color value, all pixels that have colors or luminance values similar to that value become

transparent”(Keying). Keying is a very difficult task, even at a professional level. It takes a great deal of practice in order to become proficient at it.



(Figure 2: Keying)

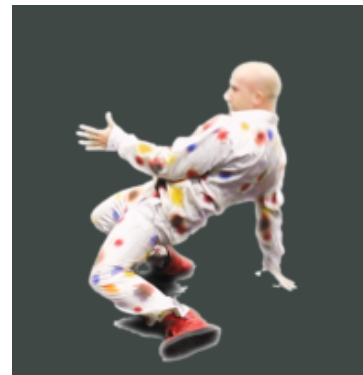
“Keying is a meticulously painstaking aspect to (visual effects)” (Moses, Dec. 4th, 2014). In the compositing world having ghosting, artifacts, dark edges and green screen spill in your final composite makes the scene look unprofessional and breaks the audiences belief that the scene is real.



(Figure 3a: Artifacts)



(Figure 3b: Dark Edges)



(Figure 3c: Ghosting & Green Screen Spill)

Even professionally in movies and on television these issues still arise. While watching *Bring it On*, I noticed that there were some issues with keying. During the credit sequence, I noticed some of their feet became translucent and there were many ghosting and green screen spill issues. “These are all technical foundations that require the utmost skill and patience to achieve.” (Moses, Dec. 4th 2014).

Compositing Software

The last thing I had to learn was how to navigate my way around popular compositing software. There are two main compositing software programs that most companies use in the professional world today, Adobe After Effects and Nuke. The first is a layer based software and the other is a node based software. I chose After Effects because it was both the easier of the two for beginners (layer based programs usually are) and also because it was the most accessible. I had already installed the program on my own personal computer and most of the computers on campus had it installed as well. This made it easier to work on my project both at school and at home.

After I decided which software to use, I had to learn how to use the software. A tremendous resource available to help me learn After Effects was a tutorial site called Video Copilot (<http://www.videocopilot.net/>). Andrew Kramer, the person who created this site and the tutorials, has worked professionally in visual effects so he has an in depth understanding of how the program works. Most of the tutorials I referred to while creating my reel were from his site.

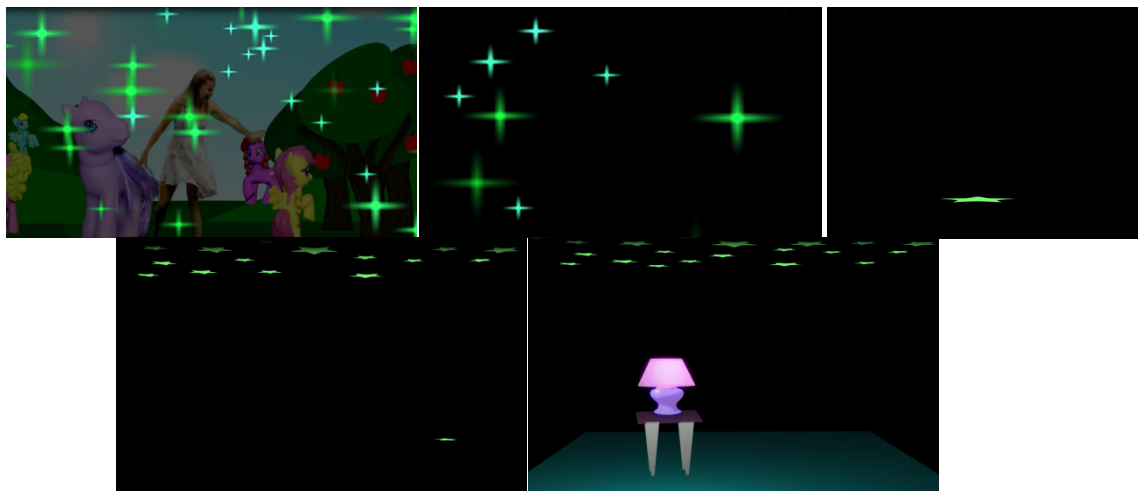
Design

At first my goal was to create a reel with just the final composite. There are two main reasons why I decided not to go this route. The first was that many people who don't work in the industry do not really understand how much time and effort goes into creating a scene. I was afraid showing just the end composite in my reel would not really capture the full amount of work that went into making it. The second was that most compositing demo reels I found focused more on the construction of the scene rather than the scene itself. This is why I decided to show the process of building each scene as well.



(Figure 4: Building the Scene)

Although the main focus was on compositing and building the scene, I did try and incorporate a loose narrative by having each dancer interact with a familiar toy. I also added an intro and transitions between each scene to strengthen the narrative feel. The transitions aimed to create a sense of flow from one scene to the next.



(Figure 5: Transitions)

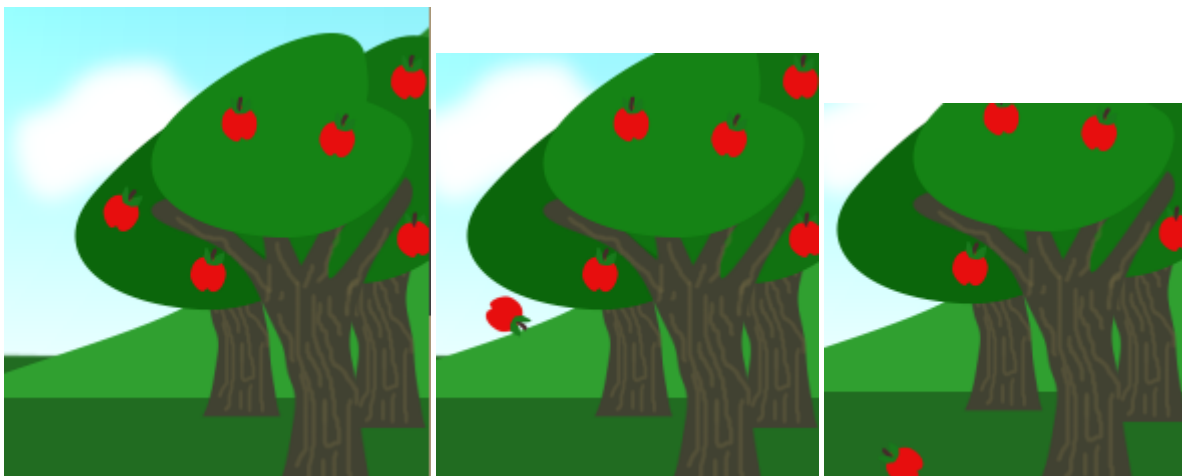
I wanted to show that I had delved into animation and 3d movement as well. I used each of my seven scenes to demonstrate three different skills that every effects artist should know, Keyframing, Lighting and Color, and 3D space and movement.

Keyframing

“Keyframing is the process of assigning a specific parameter value to an object at a specific point in time” (Motion 4 User Manual). Keyframing is what made animation within my reel possible. All seven of my scenes incorporated the use of keyframing, whether it was to animate the “fake” camera or to animate certain elements in the scene. There were, however, three scenes that really focused on keyframing: the G.I. Joe scene, the My Little Pony scene and the Circus scene.

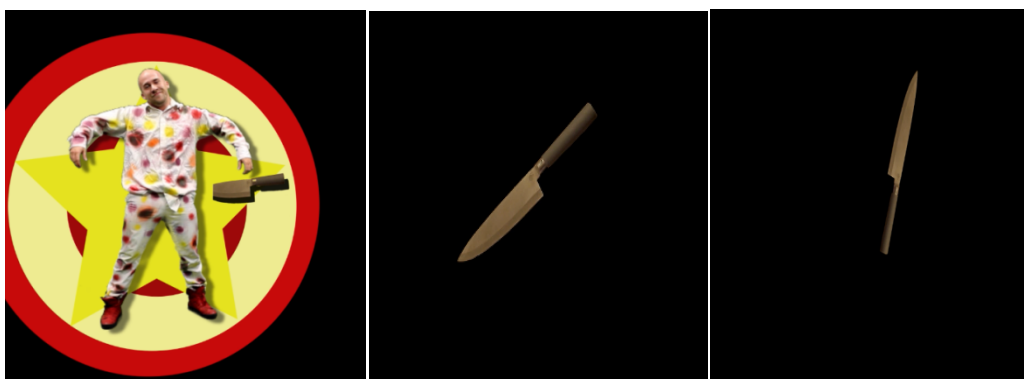
When creating the G.I. Joe scene, I added moving fog as well as a slow moving jeep in the background. I did want to animate the toy but did not have sufficient time to do so.

Within the My Little Pony scene, I used keyframing in order to animate a variety of things. I keyframed both rotation and position parameter values of an apple so that it appeared to fall out of a tree. I also did the same to move the butterfly and to rotate its wings so that it looked like they were flapping. The sparkles are also keyframed to follow the motion of the dancer. To make the large pony’s head turn toward the dancer, I also keyframed multiple pictures of the pony in the scene. Each frame had a different picture associated with it.

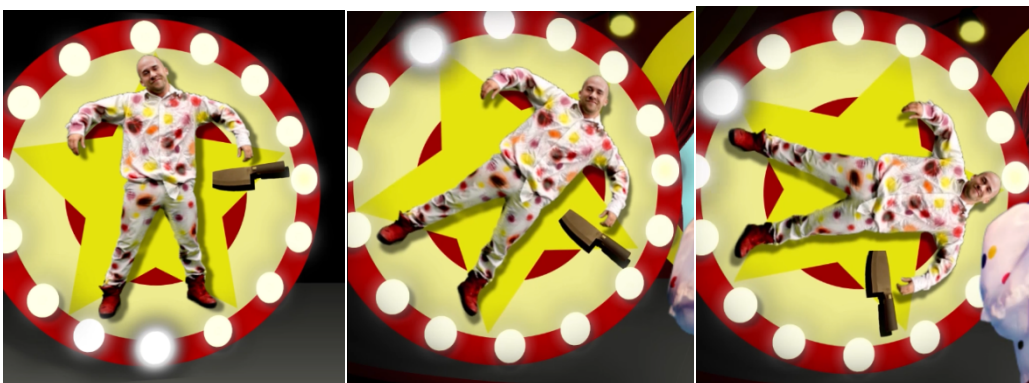


(Figure 6: Keyframing)

For the Circus scene, I used a similar process to animate the spinning wheel of death. I keyframed the rotation parameter of the wheel in order to make it spin. To animate the lights, I added a glow to each one and then keyframed the intensity of the glow over time to make them appear to flash on and off. I also used the same technique of keyframing different pictures when animating the toy and so that it interacts with the dancer as well.



(Figure 7: Keyframing the Knife)



(Figure 8: Keyframing the Wheel)

Lighting and Color

Another aspect of visual effects I wanted to focus on was lighting and how that light affects the color and look of the overall scene. I focused on this in both the Boxing scene as well as the Safari scene.

In the Boxing scene, I tried to create three dimensional lights to simulate the spotlights you might see at a boxing match. I focused on both animating and changing the color of these spotlights and how that affected the entire scene.



(Figure 9: 3D Lights)

In the Safari scene, my main focus was to create and keyframe my light source, which was the sun. I tried to simulate a sunset and focus on how the movement of the sun affects the the colors of the sky and all elements in the scene.



(Figure 10: Using the Sun as a Light Source)

3D Space and Movement

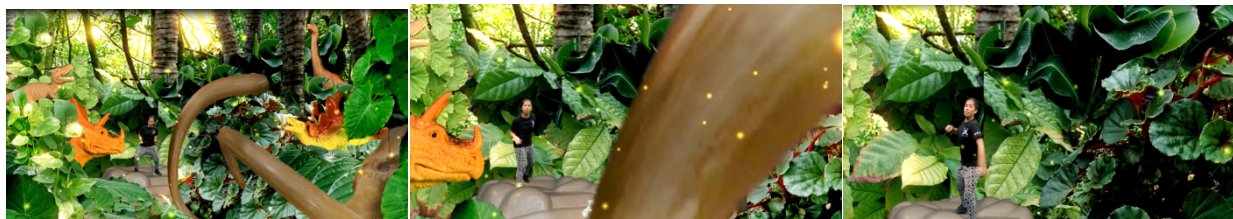
My focus with the other two scenes was on creating the illusion of 3D space and movement.

In the scene Heidi's Room, I created a full 3D environment that simulates a child's bedroom. I can move around in the room without breaking the illusion of it being 3D.



(Figure 11: 3D Space)

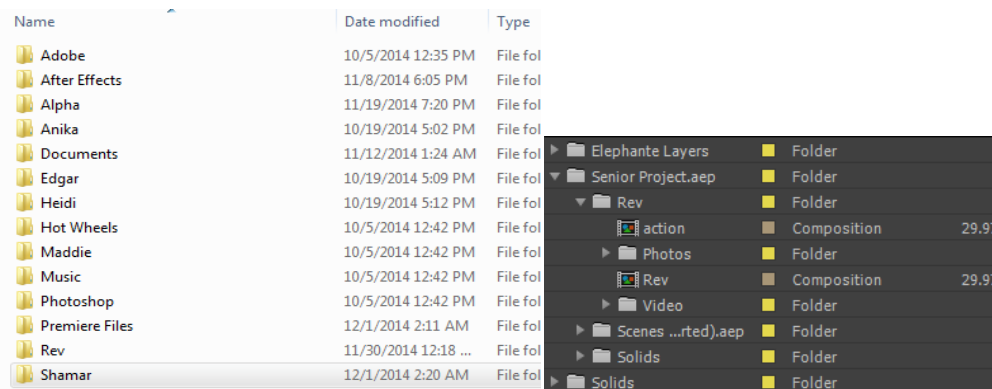
In the Jungle scene, my primary focus was on moving in z-space so that my scene seemed as if it was much larger and also 3D. I created dimensionality by layering multiple plants on top of each other and manipulating their color.



(Figure 12: 3D Movement)

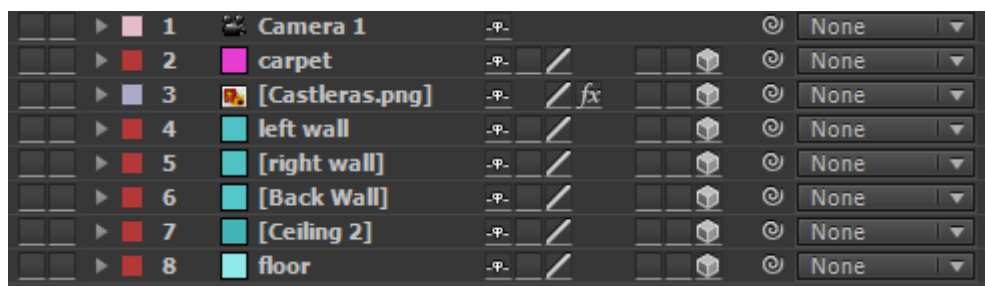
Implementation

Throughout this process, I have learned that organization plays a huge part in efficiency. When working with hundreds and hundreds of files, being organized was incredibly important and it made it a lot easier when trying to find certain images to put in my composition. To stay organized, I had a file for each dancer containing their videos and all of the elements I used in their scene. I also had a file with all of the After Effects files in it. I learned halfway through the project that it was smarter to have separate files for each dancer so that After Effects did not have to load everyone's files into a single project. With my laptop's poor processing power this would take around 10 minutes. My poor computer was tested to its limits!



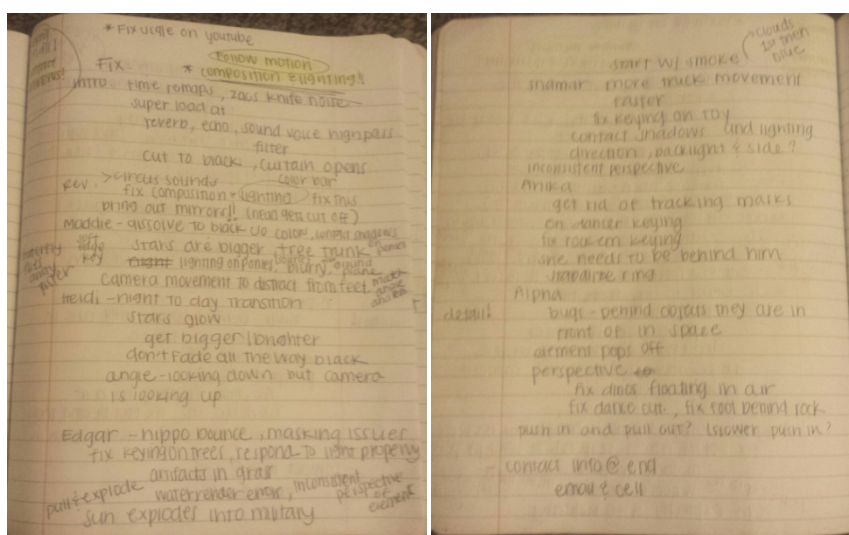
(Figure 13: Files Organization)

There were a lot of things in After Effects that I learned would make the process both easier and more efficient. One of those things was naming conventions. It was very important for me to name each layer properly, especially when having many layers within an After Effects composition. When you have many different solids making up a scene, like I did in Heidi's Room, it makes it a great deal easier to know which solid was the ceiling and which was the floor.



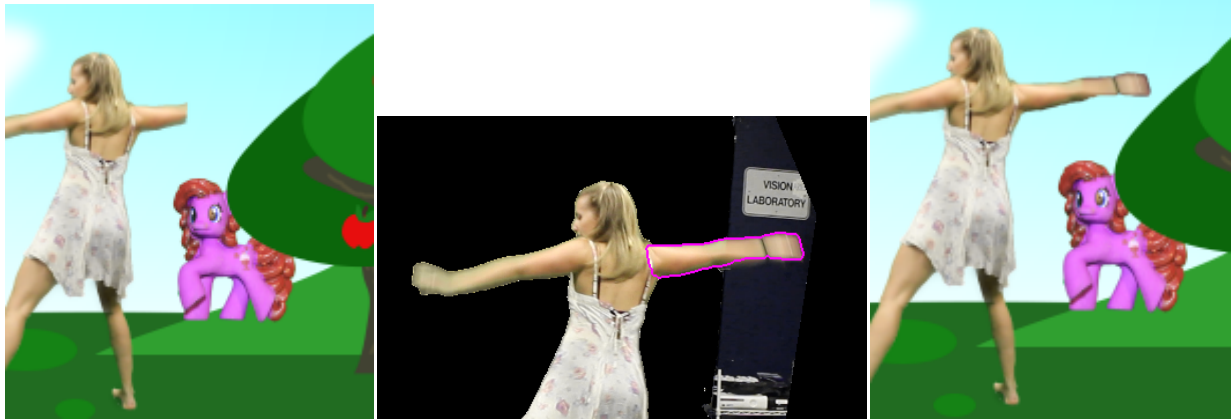
(Figure 14: Naming Conventions)

There were a lot of other little tricks that I learned throughout the process that made things easier and conserved processing power. Once I mastered certain “tricks,” it allowed for less time consuming last minute changes. These little tricks allowed me fit more final corrections into the remaining time I had.



(Figure 15: Last Minute Changes)

What I’ve learned made the process a little quicker. For example, I found ways to make things like “rotoscoping”, which eat up a lot of processing power, take less time to render. Rotoscoping just means cutting out someone from the background. In some cases my dancer’s arms would span past the edge of my green screen and I would have to go through each frame and trace their arm back into my scene. Having rotoscoped layers like this only when needed rather than throughout the entire segment moved things along a little faster.



(Figure 16: Rotoscoping)

Analysis and Verification of Project Success

Factors to be Assessed

The two factors that I am basing the success of my project on are both the demo reel and whether or not I discovered a successful way to judge a subjective senior project like mine.

How Each Factor Will Be Assessed

In order to judge the success of my demo reel, I gathered a panel of expert judges. These judges consisted of two Cal Poly professors, David Gillette and Dr. James Werner as well as two industry professionals, Brian Sales and Phillip Moses. I asked each to give me some criteria they might use to judge a demo reel and also asked them to look at my demo reel and provide some feedback as well as rate it (See Appendix A for IRB Package).

For the film based experts, David Gillette and Dr. James Werner, things like camera movement and narration were important. I tried incorporating some of this but focused more on the compositing. For all four experts involved, composition was the key to creating realistic and interesting scene. Other things like keying, perspective, integration and having a cohesive light source were also important, especially for the industry professionals. The music and pace were crucial to creating an entertaining reel.

I also asked each expert to rate my work on a scale from 1-5.

- 1) Beginning
- 2) Emerging
- 3) Satisfactory/Meets Expectations
- 4) Accomplished
- 5) Exceptional

Assessing whether or not the model I used to determine the success of my reel was successful in and of itself was based purely on how much I felt I got out of the process. I discuss this below.

What Success Will Look Like For Each Factor Assessed

I met weekly with the two Cal Poly professors in order to get feedback for about a month. The industry professionals, however only got to see my project for one week and I only received one rating from them. At first I thought that I would be able to judge whether or not I was successful by checking if I had improved in rating, but since the industry professionals only gave me one rating, I felt the best way to judge whether or not my demo reel was successful was to set the bar at a rating of 3. If all judges felt like my demo reel was satisfactory and met their expectations, my demo reel could be considered a success.

Individual Ratings

David Gillette:

We met in the LAES lab every Thursday for about a month. When we first met my reel started out as a two, mainly because of cohesiveness and perspective issues, but as the weeks went by and I really improved on my scenes, my rating went up to a four. I received a lot of great feedback on what elements and transitions I could add.

Dr. James Werner:

I also met with Cal Poly Professor Dr. James Werner for a month. The reel started out as a two as well, but by the end it became a three. At the beginning, however, he was impressed with my keying and told me that it was worthy of a three. A lot of comments he made were about narration, camera movements and animating the toys. I could not do as much animation in the time I had, but I do plan to work on animating the toys in the future.

Phillip Moses:

Moses only got to see the final draft of my reel once and gave me only one rating. The rating I received was below beginner. This was a little expected coming from such a professional level. He judged it based on whether or not it was at a level in which he could hire me, which was very difficult to achieve within ten shorts weeks of teaching myself anything and everything I needed to know about compositing. He did, however, like the concept and commended me on some of the keying and the use of a couple drop shadows. He also gave me a lot of great advice and feedback about how to improve it and how to proceed on my way to becoming a compositor. The biggest things I need to work on are integration, perspective and composition.

Brian Sales:

I did not receive a rating from him yet but I did get some great feedback on layout my demo reel. He recommended that I focus more on just the construction of each scene.

Although I did not quite meet the bar for success that I had set for myself, I did learn a lot about what I needed to do in order to get there and received a lot of great feedback.

Did this Process Work?

Having an expert panel of judges was incredibly helpful for me and the future of my work. Meeting with professor's weekly gave me a good idea of what I needed to improve upon on a smaller scale. It also, gave me a reason to reach out to the professionals I met through the mentor report and have them review my work. Both of them gave me a lot of great advice and feedback. Moses in particular really took the time to explain what worked and didn't work within my reel and what the steps are needed in order to improve my reel as well as getting into the field of compositing. The first step is to look at the world with new eyes and observe how light reacts with the world around it. Second, I need to become a student of photography and composition to get a better understanding of what makes a frame balanced and visually appealing. Third, I must become a critic and take note of what I like and dislike about other people's work. And, finally, I need to get as much education and practice as I can. I received far more than I ever could have expected by using this model to judge to success of my project.

Societal Impacts

This was a more personal project but it does impact the future of students interested in compositing or visual effects in LAES. I was also able to spark the interest of outside professional's in Cal Poly's programs as they relate to special effects.

Future Work/Conclusion

I am so proud of everything I have accomplished in regards to this project, but I definitely have a lot more to learn and want to continue to seek the knowledge and experience required to be successful in this career. I will continue to work on and improve this project using the feedback I received from the panel of expert judges. I will also be looking into trade schools or graduate school for visual effects. In the meantime, I will be taking the advice I received to heart, and really continue to study compositing on my own.

I am so grateful that there is a program that allowed me to come up with a senior project catered to what I really wanted to learn. I feel like I am a lot closer to my goal of becoming an effects artist because of this project. Thank you to all my judges for the great feedback and advice. I could have never gotten to this point on my own.

To see my full demo reel go to <https://www.youtube.com/watch?v=EXB14J5cVzA>

References

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*The main site I used for After Effects tutorials was www.videocopilot.net. All outside images were found using Google's labeled for reuse search engine.

Appendix A

IRB Package

HUMAN SUBJECTS PROTOCOL APPROVAL FORM

Cal Poly, San Luis Obispo

All Cal Poly faculty, staff, and student research with human subjects, as well as other research involving human subjects that is conducted at Cal Poly, must be reviewed by the **Cal Poly Human Subjects Committee** for the protection of human subjects, the researchers, and the University. Human subjects research is defined as any systematic investigation of living human subjects that is designed to develop or contribute to generalizable knowledge. While the ethical guidelines for research are applicable to classroom activities, demonstrations, and assignments, the Human Subjects Committee does not review classroom activities unless data will be collected and used in a systematic investigation.

Researchers should complete all items on this approval form and submit *three copies* of it, along with *three copies* of a research protocol (containing the information detailed in [Guidelines for Human Subjects Research Protocol](#)), to the Office of Research and Industry Relations (Debbie Hart, Bldg. 38, Room 154). Please feel free to attach an additional page if your responses to any of the items require more space. Your answers to the items on this form, as well as the research protocol, should be typed. The Committee will make every effort to respond to your submission within two to four weeks. Committee approval should be received prior to contacting prospective subjects and collecting data. Please read carefully [Cal Poly's Policy for the Use of Human Subjects in Research](#) prior to completing this application.

*If you require assistance in completing this form,
contact the Office of Research and Industry Relations at (805) 756-1508.*

<p>1. Date: <input type="text" value="10/6/2014"/></p> <p>2. Title of Research Project:</p> <div style="border: 1px solid black; padding: 5px; min-height: 50px;"> <p>Senior Project</p> </div>	<p>3. Type of Research:</p> <p><input checked="" type="checkbox"/> Senior project</p> <p><input type="checkbox"/> Master's thesis</p> <p><input type="checkbox"/> Faculty research</p> <p><input type="checkbox"/> Other: <input type="text" value="please explain"/></p>
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4. Name(s) of Researcher(s)

Principal Investigator:

Department or other affiliation:

Phone: Email:

Position: ☐ Faculty ☒ Student

☐ Other:

Additional Researcher:

Department or other affiliation:

Phone: Email:

Position: ☐ Faculty ☐ Student

☐ Other:

Additional Researcher:

Department or other affiliation:

Phone: Email:

Position: ☐ Faculty ☐ Student

☐ Other:

Any additional researchers involved in the project should be listed with the descriptive information requested above on a separate sheet.

5. Faculty Advisor (if applicable)

Name: Email:

Department or other affiliation: Phone:

Other thesis committee members if the research is a thesis:

Name: Email:

Department or other affiliation: Phone:

Name: Email:

Department or other affiliation: Phone:

Name: Email:

Department or other affiliation: Phone:

6. Is there an *external* funding source for the project:

☐ Yes, and the source is:

☒ No

7. Is this a modification of a project previously reviewed by Cal Poly's Human Subjects Committee?

☐ Yes, and the approximate date of the last review was:

☒ No

8. Estimated duration of the project:

Starting date: Completion date:

9. Describe *any* risks (physical, psychological, social, or economic) that may be involved.

See *Specific Ethical Criterion #1* in [Policy for the Use of Human Subjects in Research](#) for a description of the types of risks.

There are minimal to no risks involved

10. Indicate what measures will be taken to minimize risks. See *Specific Ethical Criterion #1* in [Policy for the Use of Human Subjects in Research](#) for a discussion of strategies for minimizing risks.

As stated above there are minimal to no risks involved

11. Explain how subjects' *confidentiality* will be protected. See *Specific Ethical Criterion #5* in [Policy for the Use of Human Subjects in Research](#) for a discussion of strategies for minimizing risks.

In the consent form I will be asking if I may refer to them by name and/or title or if they would prefer I use a pseudo name and/or title, or completely anonymously

12. Describe any *incentives* for participation that will be used. See *Specific Ethical Criterion #2* in [Policy for the Use of Human Subjects in Research](#) for a discussion of the use of incentives in research.

There are no incentives for participation

13. Will *deception* of subjects be involved in the research procedures?

☐

Yes*

☒

No

**If so, explain the deception and how it will be handled. See Specific Ethical Criterion #3 in [Policy for the Use of Human Subjects in Research](#) for a discussion of the use of deception in research:*

14. Type of review requested:

☒

Exempt from further review*

☐

Expedited review

☐

Full review

See *Types of Review* in [Policy for the Use of Human Subjects in Research](#) for a discussion of the criteria for exempt, expedited, and full reviews.

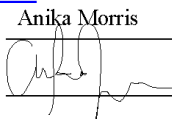
**The research protocol submitted for a project presumed to be exempt may be abbreviated but should contain sufficient information to support the conclusion that the project meets the criteria for exemption.*

15. Signatures:

Your signature below indicates that the information presented in this application (the approval form and research protocol) is accurate and that you have read, understand, and agree to follow the [Policy for the Use of Human Subjects in Research](#).

Name of Primary Researcher: Anika Morris

Signature:



Cal Poly Faculty Advisor's Signature (Required if this is student research)

I have reviewed this research proposal which has been prepared by my advisee(s) in accordance with the [Guidelines for Obtaining Human Subjects Approval](#).

Name of Faculty Advisor:

Signature

[Return to the Human Subjects Committee homepage.](#)

RESEARCH PROTOCOL

Title of Research: Senior Project

Name of Primary Investigator: Anika Morris

Department/Affiliation: LAES

Faculty Advisors: Jane Lehr and Michael Haungs

Statement of Purpose, Benefits, and Hypothesis

The purpose of my senior project is to create a professional looking 2-3 minute video that I could potentially use as the start of a visual effects demo reel and could share with future employers. In order to judge the quality and professionalism of the effects I will be creating, I would like to gather a panel of experts. These experts will include a few Cal Poly professors who have useful filmmaking and visual effects knowledge and possibly a couple of people who currently work in the visual effects industry. Having this panel of experts would not only help verify the success of my project but would also help develop standards that can be used to assess future visual effects based senior projects within the Liberal Arts & Engineering Major.

Methods

Subjects: My subjects would be the professors and professionals that would make up my panel of experts.

Experimenters: I will be the one conducting this study.

Materials and Procedures: I will hand out a consent form to all who wish to participate and then will either communicate via email or in person to get feedback on the video portion of my project throughout the quarter.

INFORMED CONSENT TO PARTICIPATE IN A RESEARCH PROJECT, “**Assessing the Quality & Professionalism of Visual Effects Filmmaking in LAES Senior Projects**”

A research project on visual effects (VFX) filmmaking is being conducted by Anika Morris, a student the Liberal Arts & Engineering Studies Program at Cal Poly, San Luis Obispo under the supervision of Dr. Jane Lehr. The purpose of this study is to develop a mechanism to analyze and verify the quality and professionalism of visual effects (VFX) senior projects in the LAES Program.

You are being asked to take part in this study by participating in a panel of expert judges. Expert judges will be asked to identify criteria that can be used to assess the quality and professionalism of visual effects (VFX) filmmaking and then employ those criteria to measure the success of the video portion of a particular senior project. Your participation will take approximately 1-2 hours total over a period of 3-4 weeks and can take place in person or asynchronously via online mechanisms. Please be aware that you are not required to participate in this research and you may discontinue your participation at any time without penalty.

There are no risks anticipated with participation in this study. If you should experience any negative outcomes of the research, please be aware that you may contact the researcher at anikam123@gmail.com for assistance.

If you consent to participate in this study, you have the opportunity to choose the level of confidentiality of your participation below. You are asked to indicate whether the researcher can refer to you by name, by title, by name and title, or by pseudonym in publications and presentations related to this senior project. Potential benefits associated with the study include immediate benefits to the senior project of the researcher as well as the development of standards for the guidance and assessment of future visual effects (VFX) focused senior projects within the Liberal Arts & Engineering Studies Program. Benefits may also include contributions to research on teaching and learning within interdisciplinary undergraduate programs.

If you have questions regarding this study or would like to be informed of the results when the study is completed, please feel free to contact the researcher or her senior project advisors, Dr. Jane Lehr (805-756-6442, jlehr@calpoly.edu) and Dr. Michael Haungs (805-756-5531, mhaungs@calpoly.edu). If you have concerns regarding the manner in which the study is conducted, you may contact Dr. Steve Davis, Chair of the Cal Poly Human Subjects Committee, at (805) 756-2754, sdavis@calpoly.edu, or Dr. Dean Wendt, Dean of Research, at (805) 756-1508, dwendt@calpoly.edu.

If you agree to voluntarily participate in this research project as described, please indicate your agreement by signing below. Please keep one copy of this form for your reference, and thank you for your participation in this research.

Please check all that apply for publications and presentations related to this senior project:

Name

- ☐ The researcher may refer to me by my first and last name.
- ☐ The researcher may refer to me by the first initials of my first and last name.
- ☐ The researcher may refer to me by pseudonym.
- ☐ The researcher may refer to me by number (e.g., "Expert 1").

Title

☐ The researcher may refer to me by title. My preferred title is:

_____.

Signature of Volunteer

Date

Signature of Researcher

Date