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Early Pioneers

by Philip Szrama

A Thesis submitted in partial fulfillment of the
requirements for the degree of: Master of Fine Arts
in *Visual Communication Design*

School of Design
College of Imaging Arts and Sciences

Rochester Institute of Technology
May 20, 2015

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1 Abstract

Rochester, NY has a rich history of innovation and visionary ideas. Many people who hear or talk about Rochester outside of the area are not familiar with the people who called Rochester their home. These pioneers took advantage of the areas strategic placement in the United States and use it to help achieve great things. The use of a short motion graphics piece can help people get a taste of what some of the early pioneers achieved.

Content, planning, and organization of this piece has been completed through research on four specific people (George Eastman, John Jacob Bausch, Henry Lomb, and Susan B. Anthony) and the times and areas of Rochester that they resided in. Early Pioneers takes the viewer briefly through each person and some of the accomplishments they made in their lives. The use of design programs Adobe After Effects, Adobe Photoshop, Autodesk Maya, and Maxon Cinema 4D as well as live shot video helped create a visual representation of these accomplishments.

The project can be viewed at: **earlypioneers.tumblr.com**

2 Introduction

Thesis Statement

A 3D motion graphics piece can be created to get people interested in learning about key historical figures of Rochester, NY.

The preferred learning process in this modern era has turned into more multimedia based visuals. While the days of going to the library and checking out books to learn information isn't extinct it has been overshadowed by the internet and video.

The goal of Early Pioneers is to get people interested in furthering the pursuit of knowledge of the history of the viewers community. It is designed to be shown at libraries, historical venues and museums.

The content in the piece was thoroughly researched and thought out so that it would hit on a few of the main figures in Rochester's history. The process in which each person is described helps viewers identify with them but, also learn something they may not have known prior to viewing.

Factors taken in consideration when designing this piece were different learning styles, age levels, and time factors. The end result is an instructional video that combines different visual techniques and audio accompaniments to help further the interest of the viewer.

Background

All of the Pioneers chosen for this motion graphics piece were important players in the shape of Rochester during the late 1800's and early 1900's. They all have left an important imprint on what Rochester has evolved into and what it is known for today.

George Eastman, the founder of Kodak. While making dry plates for photographers in 1880 he rented out a commercial space on the third floor of a building on State street. (This is the building that has been recreated for the piece). In 1883 he then moved the company to 343 State street which is now the global headquarters for Kodak. In 1888 he built and sold the first camera for Kodak. Eastman's legacy was built in Rochester and is known throughout the world still today.

John Jacob Bausch & Henry Lomb, the founders of Bausch & Lomb trace their roots back to 1853 when Bausch setup a tiny optical goods store in Rochester, NY. In the shop they were selling an array of spectacles, telescopes, microscopes and opera glasses. In 1880 they expanded their product line to Photographic lenses. George Eastman's first camera featured a Bausch & Lomb lens. Kodak would rely heavily on Bausch and Lomb for camera lens and shutters.

Susan B. Anthony, was an American social reformer, suffragist, and feminist who played a vital role in the woman's suffrage movement. By the 1880's she had risen to the status as a senior political figure. As the nation started to see the women's suffrage movement as a serious matter Anthony and Elizabeth Stanton joined the lecture circuit to help gain momentum for the woman's suffrage movement. Anthony was arrested in Rochester, NY near her home for trying to vote. Unfortunately, she never got to see the 19th Amendment ratified to allow her fellow women the right to vote, Anthony died on March 13, 1906 in Rochester, NY.

3 Review of Literature

Amsterdam DNA

Plus One

www.plusoneamsterdam.com/work/show/amsterdam-dna

Plus One created a trailer for an upcoming museum display that they were going to implement in the Amsterdam Museum. In cooperation with curators at the museum they came up with seven scripts that shed light on the most important elements from over 1000 years of history in Amsterdam.

Naturalis

Plus One

www.plusoneamsterdam.com/work/show/ncb-naturalis

Plus One designed a motion graphics piece that explained the merger of three institutes collections from the Naturalis Biodiversity Center. They were asked to create a film which the past, present and future of the organization were visualized.

De Gouden Eeuw

Plus One

www.plusoneamsterdam.com/work/show/de-gouden-eeuw

Plus One created a design package and several animations to accompany the documentary series about a period of Netherlands history called the De Gouden Eeuw.

Pixels

Patrick Jean

www.vimeo.com/10829255

One More Productions with Patrick Jean created a motion graphics piece using motion tracking and 3D design to show an invasion of New York City by 8 bit creatures.

Stay On Point

Sebastian Hoppe

www.vimeo.com/86584404

Sebastian Hoppe created an eight second short with typography animation that is designed in a way to show the typeface be written on like a blueprint. It is very elegant and well done.

London Street

Mike Stoliarov

www.vimeo.com/108994627

Mike Stoliarov created a London Street scene in 3D using Maya, V-Ray, and After Effects and in his video shows the breakdown of how it was done. While not a tutorial in the traditional sense it still was an inspiration on how to composite for historical scenes.

TSB - The Story

Studio AKA

www.vimeo.com/74185016

Studio AKA designed a film for the bank TSB about the history behind the building of the TSB bank. The story uses a beautiful and swift camera movement to suggest the passage of time. Also the use of 3D to show the lapse of time is very well done.

Assassin's Creed II Teaser

Fizah Rahim

www.vimeo.com/45905209

Fizah Rahim created a motion graphics piece for Ubisoft to help with advertising of their game Assassin's Creed II. The use of transitions are beautiful and elegant.

4 Process

The goal of Early Pioneers is to tell a story about four people who lived and worked in the city of Rochester during the late 1800's - early 1900's. When I moved to Rochester and lived in the Park Avenue area I felt as though there was a lot of rich history in the Rochester area. My quest for knowledge on the subject lead me to the public library and a plethora of books. I realized that the majority of the materials explaining the history in this area where only in print. I saw that there was a need to use another media to help people of this area especially children. Narrowing down the list of people down to a few key pioneers was difficult but, I feel that my choices are able to shed some light on very important and influential people.

The time period in which I chose to pull from is also very important to the Rochester area. The industrial and social changes that were taking place during the late 1800's - early 1900's were monumental steps in the development of not only Rochester but, also the nation.

Using the motion graphics platform as a way to present these Pioneers is also very vital to the story telling process. In my personal research I have not come across this medium used in a way to tell a part of history in Rochester. I believe that it lends itself to be easily viewed and more widely accepted among our current generation. Using this art form also helps to bring a very dynamic and a visual realism to the past.

Research

Before looking into the historical aspect of the piece, I first wanted to research what the benefits of using a visual medium such as motion graphics was. This would help me to better understand how to communicate with my audience and to make sure that they could retain the information easier.

A professor at the Lincoln University in New Zealand, Neil D. Fleming designed a method in which a simple sixteen question questionnaire can help to determine what the best delivery method of learning is for a person. The VARK model which stands for Visual, Auditory, and Read/Write, and Kinesthetic helps determine learning based on the way information is presented. After a questionnaire is filled out a person can be accessed on which model/models is right ideal for learning. It should be noted that the VARK model is a sibling to the VAK model created by Howard Gardner which both have similar ideas on multi-modal learning.

There is also the possibility for a person to be a multi-modal which means that two or more of the methods are equally ideal for the person. In this case a combination of methods can help the person to learn and retain information better. In my piece I used two methods from the VARK model to help make my piece easier to learn and keep the viewer engaged.

The Visual and Auditory learners are the ones that this piece aims to target. Visual and Auditory learners retain information better through the use of visuals (pictures, movies, graphs, etc.) and listening (tapes, lectures, discussions, etc). Both of these types are utilized through this motion graphic piece to try to help engage as many people as possible. Although, there are many other factors such sex, motivation, experiences, and language barriers that can alter how a person retains information, the VARK model can still aid in how subjects are designed in order to help a wider variety people learn the information.

When going through the historical periods of Rochester, NY there are many time periods with significance. The start of a really significant period in Rochester's history is the late 1800's - 1900's. Major companies that are still a part of the community started in this period. (Kodak and Bausch & Lomb). Also a significant social change was in the making as well (Woman's Suffrage). George Eastman, Henry Lomb, John Jacob Bausch, and Susan B. Anthony were all significant people in the shaping of the city of Rochester. To help understand the look and feel of the period I drew upon photos that were taken.

Since all of each of the pioneers companies and historic sites are still preserved today in Rochester I was able to reach out them for materials that I could use to not only create certain items but, also the ability to maintain a historical accurateness.

When visiting both the Susan B Anthony House and the George Eastman House it is was apparent that both of them were well respected and had become a woven part of the community of Rochester. Also to some degree it seemed as though a lot of people know of these places. As museums they have the stereotype of an intellectual and scholarly institution, but upon viewing them with my own eyes it almost felt like I was going over to a relatives home. Both buildings still seem like the are apart of the community in which they reside. I think that is what makes them both so unique as far as museums go.

When trying to decide how best to tell the story of these pioneers I wanted to make sure that it was something that would resinate with a wide range of people. Motion graphics and animation have a wide audience and is a utilized creative medium for the delivery of information. I also wanted to engage the audience in a way that they felt that they could see how the past had looked. I wanted to play on a balance of the then and now and give them 3D representations of items. Using Autodesk Maya, Maxon Cinema 4D, Adobe After Effects, Adobe Photoshop and live filming I feel I was able to recreate items and the time period to help the audience get that feeling.

Target Audience

The target audience for Early Pioneers on the surface seemed fairly straight forward. The target audience would need to be focused on people who would be able to view, listen and retain the information. Children under the age of 3 would have to be excluded due to the retaining of information. Other than that the target audience is open people over the ages of 3 regardless of sex, race, and religion would be capable of viewing the piece. Also due to the region in which all the pioneers are from that main target audience would be in Rochester, NY. This piece could still have an impact nationwide due to how famous all of the Pioneers have become.

In the United States of America the curriculum for grades 6 - 9 in the U.S. History section that students should learn about the Progressive Era. Locally in Rochester this is also the time that students would learn about Susan B Anthony, George Eastman, and Bausch & Lomb.

Design Decisions

When thinking about the design of the piece the idea of recreating objects and places of the past was a reoccurring theme. I wanted to be able to show the viewers a unique perspective of the time period that were vital to understanding the pioneers. The use of photographs was an important resource and tool to telling the story because of the nature of the pioneers. George Eastman was vital in the photography business in Rochester and the nation at the time as was Bausch and Lomb. I also wanted to use 3D animation and motion tracking to help recreate the first building George Eastman leased on State Street that is no longer there. I thought it was a unique piece of the story that a lot of people haven't seen. The idea of blueprints was also a component that helped the story along as both Eastman and Bausch & Lomb were inventors of physical products.

The Susan B. Anthony portion then lended it self to the use of Photographs and books as a visual element due to her work in politics. As an overall design element I wanted to bring the piece together with color. The use of desaturation and sepia tones would help with that. The old style of film was a large influence on this piece to again the nature of the pioneers, the time period and what they had accomplished. I also knew from the start that I would have a voice over to bring the information to the viewer without distracting them visually.

Project Development

The first step in the development of this project was outlining how the story would flow and deciding which animation style would help make the story work. Determining what the transitions would look like was also very crucial to the flow between each subject. The style of the piece was decided upon by utilizing reference materials on historical motion graphics pieces that have been used in museums.

Size

The size of my project is based on the standards for high definition televisions. The format will be 1920 x 1080 at 30 frames per second. This size can be accommodated by the web as a format as well.

Design Style

The design style that I chose was based on a few motion graphics pieces about historical figures and places. Using an old film aesthetic with sepia tones for the live film shot allows the viewer to feel as though they are back in the time period being represented. The rest of the color tone is more realistic with faded saturations. The use of 3D and 2D animation is an integral part of helping the viewer stay engaged in the subject matter as well as feel as though places and items were tangible without being able to touch them. To keep the piece flowing at a good pace the transitions had to be thought out and fluid so that the viewer remained engaged. The use of motion tracking is also an important element that creates the feeling of seeing the actual building on State Street though it is no longer standing. Photographs are integral in the piece as well. Due to the nature of some of the pioneers chosen, photography is used to not only help with the visual style but, also to show the viewer what those pioneers were working on. Overall, the style of the piece had to convey a documentary feel with the use of voiceover, stylized graphical elements, and a smooth flow.

One of the most challenging aspects of this project was making sure that the viewer was engaged throughout the piece. The use of storytelling was something that was a trial and error as the piece progressed. While I knew that the piece would need great transitions to keep the animation fluid I had to figure out how to visually be able to tell enough about each pioneer. The other difficult part of the storytelling part of this piece was to try to condense all of these pioneers innovations and accomplishments into a two minute motion graphics piece.

With all of these issues to consider I made the decision to focus on at least two things that each pioneer accomplished that not only affected Rochester in a significant way but, also made an impact on people's lives. I remember when I was learning history in grade school and high school it was always stressed that it was important we remember the years and time line of when events occurred. I feel that that fact had a lot of significance in how I designed this piece. Without knowing the time line of these pioneers' accomplishments the importance of what they did gets lost, therefore I told each pioneer's story and ultimately the entire piece with a linear time line.

The next step was melding each pioneer together with the others in a way that kept the viewer interested and engaged. The key to this was the transitions. I wanted the transitions to be seamless which meant that I had to find a way of incorporating elements of the previous scene with the next scene. An example of this is taking a photo of Bausch and Lomb that flies in off a table into an extreme close up where it then blends into them a newspaper. I also wanted to find creative and unique ways to use some of these elements in a non traditional way. An example of this is the way I took a framed portrait of George Eastman and used it as an open doorway into the next scene. By combining all of the pioneers scenes into a seamless animation the viewer is able to focus on the information being presented.

After going through many iterations of the story I realized that the most important element was to not overwhelm the viewer with information but also to keep them interested in the subject. This project really helped me to understand that the story carries a lot of weight when it comes to design. Without a strong story line it does not matter how great the visual and audio portions are, the piece will not be great.

Once I knew what the story line, design and transitions were going to be I laid out my project pipeline to try to be as effective and efficient as I could be. The first step I took was to rough draw storyboards to get an idea of what was going to be seen on screen as the voice was explaining each pioneer. This turned out to be one of the most important pieces to the puzzle because it allowed me a simpler way to outline changes for various iterations of the piece. Seeing the road map of the animation made designing the transitions a lot easier. After I started doing the actual designing, I realized that things would change from the storyboards but, that I had an easier time figuring out what elements needed to be created and in what form they would be in because of that initial outline.

After compiling a list of assets that I knew had to be created I sorted the list into different categories to aid in the project pipeline. I now knew that I would need to start on the things that would take the longest, first. The first step was filming the live motion tracking portion of the piece before I designed the building in 3D. Since I had never filmed a back plate that was designed for motion tracking I ran into a few problems with lighting, not locking down the camera, and the depth of field on the camera. The difficult part was that I did not know if the video was good enough quality to track until I took it back to the computer. I was also learning new software called Boujou which is used for tracking scenes in 3D. The process of filming live footage and learning Boujou proved to be a difficult task, but like most software and processes I eventually learned what worked and what didn't. The most important things that I realized was that when filming live footage, you need to lock down the camera and try to keep the movement as minimal as possible. Also the lighting conditions needed to have a significant amount of contrast. While it is not impossible for someone do tracking without having these conditions met it should be stated that it does make the task a lot easier. If you use the approach that I outlined and have your footage optimally shot, it will yield better results of the tracking data.

Then next portion was that there were elements that needed to be modeled in 3D. They would require animation and a significant amount of render time to complete. The 1880 text, State street building, Kodak camera, and Susan B. Anthony's desk would all fall into this category. I started with the building because I knew that it was going to have to be used in the background that I had applied the motion tracking to and would require a lot of attention to get composited correctly. I looked at old photos to get a representation of what the building used to look like. I also used the background plate to help with the scaling. I built each floor separately and used an HDR image of the video scene to light the building. I then keyframed each piece of the building to animate the building being built. After many trials with working with Boujou, Maya, and After Effects to get the scene to work correctly I never seemed to get everything to work just right. I found that this pipeline proved to be very difficult to get an accurate and efficient design completed. I therefore needed to find an alternative to what I was doing. I realized that Cinema 4D had just built 3D tracking software into their newest version of R16. I had never used Cinema 4D before and so I again had a little bit of a learning curve. Since Maya and Cinema 4D are very similar in their functionality, the biggest issue was figuring out which controls did what. Also the new tracking software in Cinema 4D had a lot of similarities to Boujou, but since it was all integrated into one program I was able to cut out a lot of render time and process making everything more efficient. Cinema 4D also seemed a lot less complicated of a process to get to the end result. I still used the same principals that I had been using before but, this time getting to the end result a lot more effective and efficiently.

After having such great results with Cinema 4D I decided to import all of the 3D portions of the project into that program. The other three scenes that were done in 3D utilized studio lighting setups, keyframed animation and was then rendered with an Ambient Occlusion pass in the physical render in Cinema 4D. The 1880 animation was also rendered using an alpha channel so that I could seamlessly composite it into the After Effects scene that I had created. This also gave me better control to change the levels and any other color correction that I needed to add to the scene.

Once I had the 3D portions of the project modeled, animated, and started to render, I moved on to the meat of the piece which was the After Effects design portion. Having the storyboard as my guide I knew where the 3D scenes would go and I knew which scene the 3D text would need to be placed into. Also I knew how I wanted the transitions to be, but implementing them was another task entirely. One of the biggest issues was getting the timing of all the scenes down. I had an audio music bed track and a rough voice over at this time to help guide me, but it still took a lot of finessing the keyframes to get the transitions to line up and work with the next scene. The use of photography also played an important role to the After Effects portion of my piece. I wanted the viewer to understand how important photography was in this time period as well as how important it was to the pioneers. I actively made a design choice to have photography as a background, foreground and transition element throughout the piece due to its significance. I also wanted the viewer to get the feeling of the time period through the use of elements from then that the pioneers would have seen and used. For example on the Susan B. Anthony desk there is a candle stick holder and desk clock that would have been from that era. Every element that I have in the piece played a role. I tried to be as accurate as possible when it came to choosing elements.

Now that the After Effects portion of the piece was flushed out it was time to add in the 3D scenes which I knew would be a crucial part because many of them affected how the transitions would work. Even after having rendered out the playblasts for the 3D scenes to act as a guide for the final 3D scenes I found I still needed the fully rendered scenes to flesh out all the nuances of the final animation. Many of the 3D scenes needed to be tweaked to fit timing and position requirements to make the transitions fluid. This took a considerable amount of time and many iterations of rendering scenes at a low resolution. One of the biggest challenges was matching up the lighting from the 3D scene into the 2D scene. I wanted to make sure that the 3D scenes had proper lighting which meant I would have to make all the changes in After Effects after I got the rendered files out of Cinema 4D. The use of levels and other color correction tools were the key to getting the scenes to match. Plenty of trial and error went into this process. Even though I understood what it took to make this work there is not exact formula to getting everything to work perfectly.

At this point I had a fully fleshed out animatic that I could now view with audio to see how the timing of the whole piece worked. Needless to say, a lot of work needed to be done to tighten the edit. The voice over needed to be rewritten several times to make sure that the length and information was correct with how the motion graphics portion was working.

It took a significant amount of time to get all of the elements to work together but, eventually they did. Having an animatic that was timed correctly I then was able to use feedback from my committee and outside sources about some of my design decisions and timing. This led to re-working a lot of the animation and 3D which consequently meant that the 3D needed to be rerendered. Rendering was a part of the project pipeline that I had allocated a significant amount of time to, but I knew that I could work on non 3D elements while this was happening which made my workflow more efficient. Again with revised animation and 3D elements being rerendered I had to take into account the things that this would then affect, especially the transitions. I once again had to go back and make sure that the transitions were seamless and that the voice over worked. After a few rounds of feedback and revisions I finally had a piece that was fully animated, timed correctly and at full resolution.

The last part of my project time line was compositing. I now wanted to implement color correction and a final mix down of the audio. The effects that I added to the piece had to work with the aesthetic of old film but, still have a modern color feel to it. These seem like complete opposites but, I wanted to make sure that there was color that wasn't too muted in my piece. The biggest issue I was having from an overall color correction standpoint was that the gamma and levels were not consistent. This was especially happening between the 2D and 3D scenes. Another issue that I resolved was, when adding the sepia tones to the piece I had to adjust on a per scene basis to get the consistency that I was looking for. I also added some atmospheric effects to help blend in foreground and background elements to make the overall composition better. These effects included particles, smoke footage, and light leak footage. After making all of the post production changes I now had a fully locked down picture. The audio on the other hand had to be mixed down so that the parts of the voice over and music bed worked together well. Adjusting the audio was very tedious but, turned out to be beneficial in the end result.

Overall, I learned a lot about project management, pipeline, and problem solving while putting this project together. I also realized that during this process that software is just a tool in the toolbox and is not a crutch that a designer can lean on in order to get a good design.

Problem Solving

After the initial design and first animatic I had realized that there were many issues with how motion tracking and live footage work together. Having footage that is too shaky, low contrast, or low resolution affects the tracking system in a negative way. To combat this problem I had to go back and reshoot a few times to get the camera movement fluid and also very clear on the portion that I was tracking. I also had to learn tracking software and the nuisances of it to be able to extract the exact tracking data that I wanted.

Another issue that I had after viewing my first animatic was the flow of the story. I realized that I had technically made the piece well, but the story was not fluid. It felt as though it was chopped up into sections and not one full piece. Each pioneer could stand on their own but, not as a whole. To solve this problem I went back and reworked where each pioneer fit into the piece and also rethought what information about each pioneer needed to be conveyed. The other way in which I went about fixing this issue was to rework all the transitions. I realized that in order for the piece to flow fluidly that the transitions had to be seamless. This process took a considerable amount of time but, in the end it proved to be worth while.

After showing my piece to my committee and other people I received a significant amount of feedback and critique. A lot of the critique had to do with the consistency and cohesion of the overall piece. I had a few elements that were only used once throughout the piece that created a disconnect. I used the blue print element only once which actually turned out to be a useful tool that I could use in more than one scene. I had to go back through and see what I could use consistently to help all of the pioneers and the piece come together. I also was over driving some color elements that seemed to take the focus away from the viewer. One of these parts was the 1880 3D text. I originally had designed it with a gold metal as the texture, but the problem was that I was not using that anywhere else in the piece. I also have a few pieces of 2D text that were inconsistent as far as the typeface. I decided to use a stone texture for the 1880 text because it seemed to fit in better with the style that I had created. It also lent itself to making the text seem more substantial and heavy. As far as the 2D text I decided to use Bodoni, a serif typeface for all of them and color them a yellowish brass. After making those changes the piece started to come together in a better way.

I also had designed an ending using a live film shot that was a great shot on its own and really captured an ending, but it was not providing the feeling of my piece being book ended or a the feeling of a final thought. I decided to take that shot out and use the first scene over again in reverse to help the viewer realize that piece was concluding. I decided that it was not enough to just reuse that shot, and since the goal was to get people interested in this topic I wanted to

direct them to where they could find more information. Since I was only touching on a few brief points for the pioneers I know that they would be able to get more depth by visiting each respective pioneer's websites. Once they got to that point they would be able to not only find more information but, also see where these places are located in case they desired to make the trip. Another problem that arose is the fact that the last shot is very busy with buildings of the city, so to put text over that could be a readability problem. At this point in the piece the final part of the voice over is also being said. This created an issue where the viewer is taking in a lot of content all at once. I therefore chose to space the animation of each website to come on separately and also add a fading black frame behind the text to help isolate them. The only other issue with this part was to fix the hierarchy of the text to reflect what was most important to the viewer.

The last problem that arose came towards the end of the project while doing the compositing of all the scenes. I wanted to use sepia tones and desaturation of colors to get the old film feel to the piece. Considering that all the scenes had different lighting I had to go back through each scene and adjust the levels and gamma. Once that was completed I then could add the sepia tones and desaturation that was needed to make the piece have consistency. This turned out to be more difficult than I previously had anticipated due to the fact that the levels and gamma played such a large role on the overall look that each scene had. The solution really was just taking the time to go back through each scene and carefully adjust each composite accordingly.

5 Summary

After problem solving many different portions of this piece I was able to come up with a design that was able to convey the historical accuracy that I was going for. The main subjects were able to be shown on their own but, also by using interesting transitions with animation that were able to keep the flow of the story fluid.

I am planning on submitting my finished motion graphics piece to a few motion graphics design conferences, mainly F6, Motionographer, and SIGGRAPH. I am also looking to be able to show this piece to the Rochester Historical Society, George Eastman House, Susan B. Anthony House, and the Bauch & Lomb archives.

6 Conclusion

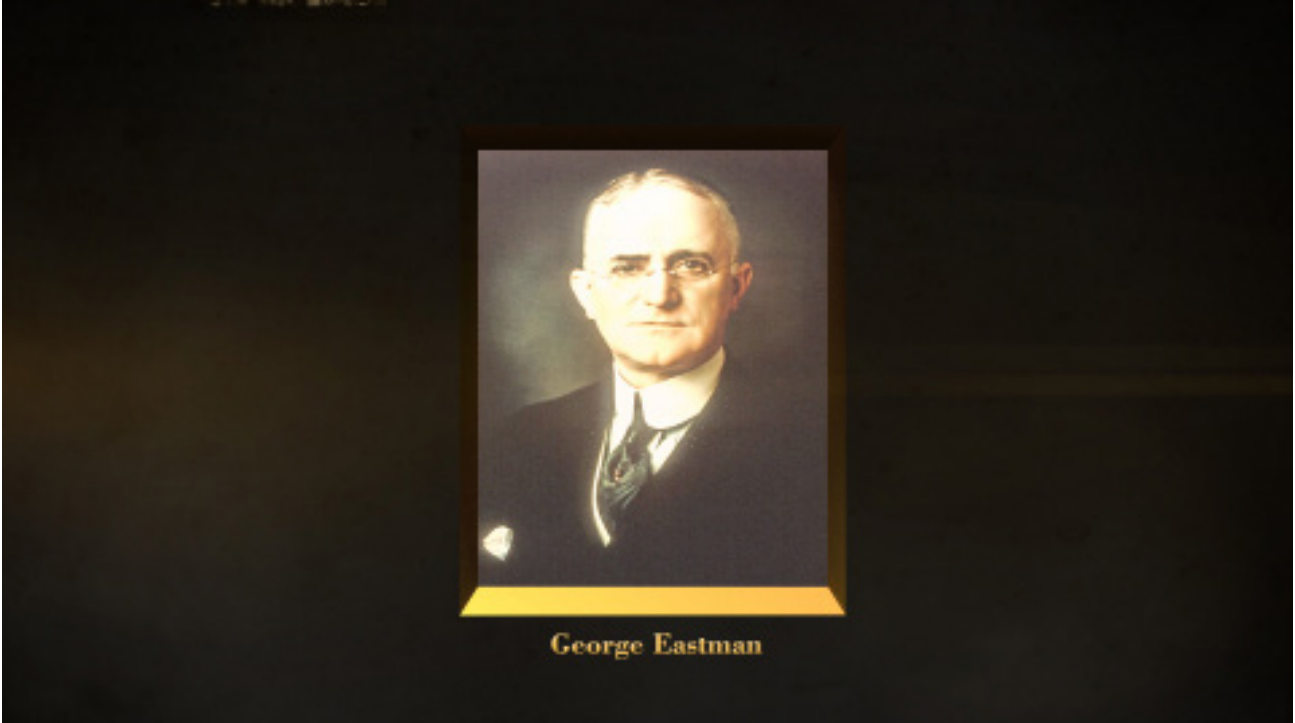
The amount of evolution with this project over time, due to story constraints and technical ability proved to me the importance of a story. No matter how much time and research is spent on the technical ability of 3D or Motion Tracking nothing can compare to a well thought out story.

With that being said there were a significant amount of additional things that I learned. Starting with the project management and pipeline portion. This was an aspect that I developed and changed as I went through the piece. There were many work flows that didn't work such as the pipeline between After Effects, Maya, and Boujou, but also many that did, for example Cinema 4D to After Effects. I also learned a valuable lesson on rendering out low res renders to get timing down rather than wasting the time on full renders. Many things that I learned were how to composite many different elements into a single cohesive project. Taking live video, 2D, 3D, and audio and compositing that all together. The audio portion was specifically unique because I had never written my own voice over or recorded one before this project. It took many revisions and reworks to achieve the right tone and timing of it.

What I ultimately take away from this project is the understanding of taking on a major production of a project from concept to finished piece. There are a lot of hats that one must wear and elements that one must be knowledgeable about to achieve the goal of professional production. Making sure that the preproduction of the piece is well thought out and thorough is a critical component. Having a time line, revising it, and then trying to stay on task as best you can well result in a more efficient and effective working time.

Everything that I learned from R.I.T. and my professional experience has helped to take my story and make it visually interesting. I have learned a lot through this process not only with 3D, Motion Tracking and Compositing but, with story building and personal perseverance. This project has helped me realize why I love doing motion graphics. It is because of the capabilities I have now to tell a story in a meaningful and interesting way.

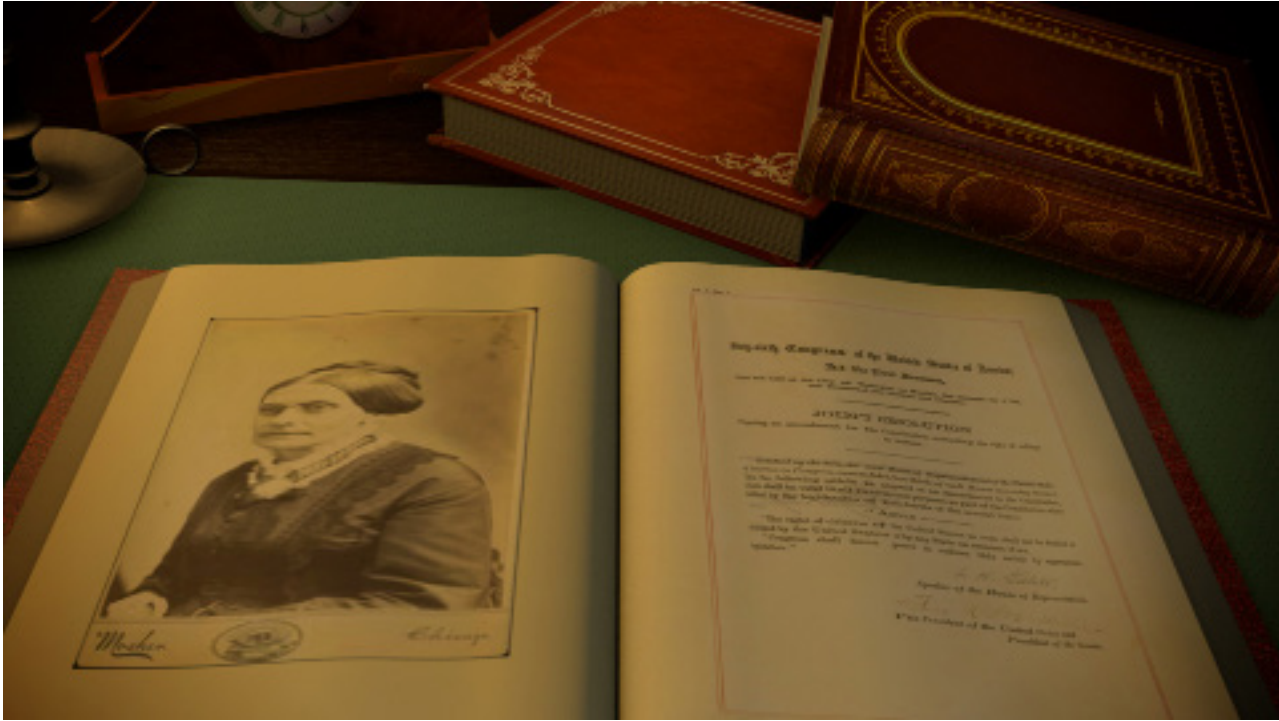














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