Slide 1: Hello, my name is Emma Knapton and I will be presenting and defending my stop motion animated film, “Displaced Embers”. I’m very excited to share this past year of hard work with you all.

Slide 2: I know most of you are familiar with the story of Bigfoot here in the PNW. However, there are stories of similar cryptids all over the world. Cryptids are creatures whose existence is disputed and not proven by science. The Story of Bigfoot here in the U.S is a complicated one that has evolved over time, incorporating ancient indigenous legends with those of the European settlers and the efforts of modern hoaxers.

Slide 3: There are some key sources that informed this film, and have shaped my understanding of Bigfoot, including the concepts and thoughts shared in the book Bigfoot: The Life and Times of a Legend written by Joshua Blu Buhs.

Slide 4: This book was foundational to my understanding and creation of my Bigfoot character Ember. The book discusses the common myths and stories of Bigfoot, which led me to visit the North American Bigfoot Center in Boring Oregon.

Slide 5: This research describes the legend of Bigfoot as a cryptid, a kind of “wild man” who is covered in dark brown or black hair similar to an ape, has very human-like features in terms of bipedal stature, is rare to witness, and depicted as a solitary creature. Bigfoot is known for walking through dense forests.

Slide 6: The legend of Bigfoot is shrouded in mystery, as many people question his existence. There are true believers and researchers recording evidence, casting footprints, and attributing peculiar instances in the forest as evidence of Bigfoot.

Slide 7: Bigfoot and similar humanoid creatures, like the abominable snowman or Yeti have been found in several different cultures and places around the world, including Nepal, Tibet, China, Australia and North America.

Slide 8: Another influential source for this film is an article by four geographical and environmental researchers, W. Neil Adger, Nadine Marshall, Jon Barnett, and Karen O’ Brien who wrote “Cultural Dimensions of Climate Change and Adaptation”. This writing has shaped my understanding of the effects of climate change on people and culture. The cultural dimensions of climate change include physical loss in terms of sacred sites, cultural foods/plants, overall methods of adapting to climate change and the loss of place attachment.

Slide 9: My lived experience has also shaped this film. I grew up in the forests of Idaho, camping and hiking often with my family throughout the Pacific Northwest. I’ve worked in conservation and forestry, collecting data and taking care of wild and beautiful natural places.

Slide 10: I’m privileged to also have a father who has worked in wildfire management for a large part of his life, who has instilled some of his knowledge into me. Growing up in rural Idaho, with

influential first hand experiences of wildfire evacuation, the term “fire season” becoming more and more common in the western U.S, and through witnessing the extremity of recent natural disasters such as the floods in New York City, has inspired my desire to visually express the reality of potential displacement due to climate change.

Slide 11: By using Bigfoot as the main character of this film, I am continuing the culture of the legend and conversations about creating resilience and solutions to decrease the severity of climate change. Bigfoot’s humanoid nature acts as a representation for both human and animal experiences, blending the reality of climate change consequences with fiction to captivate audiences.

Slide 12: Both humans and animals are experiencing different ways of life due to the effects of climate change and the legend of Bigfoot is one way to highlight this. Due to the elusive nature and existence of Bigfoot, our shrinking forests highlight the fragility of natural landscapes and the importance of resilience. Just as Bigfoot’s habitat is under threat, so too are the countless species and human communities affected by environmental degradation.

Slide 13: I created this film to create awareness of the displacement and potential extinction of humans and animals and to encourage building climate resiliency, to avoid becoming a “Displaced Ember”.

I chose stop motion animation as my form of visual storytelling because it is a form of resistance against artificial intelligence becoming part of our visual culture. Visual art and media are one example of the cultural dimensions in which we live.

Without considering these cultural dimensions in which we exist and the specific ways in which climate change can alter our lives, solutions and methods for resilience cannot be built.

Slide 14: As resources are being pooled towards advancing artificial intelligence, the physicality of the medium was significant to me. Stop Motion as a medium is also process based, which is why I chose to display the set pieces and puppets used to create this film alongside the film today.

Slide 15: I would like to talk about my artistic inspirations.

Slide 16: I was inspired by the original 1939 movie “The Wizard of Oz” adapted to film by Noel Langley for the narrative and flow of my film.

In leaving home, Dorthy is leaving her sense of place attachment behind.

The friends she meets along the way inspired me to create my yeti character, Lumi, who Ember meets in the Arctic.

Slide 17: My narrative and formal choice to use ambient sound was informed by the sounds attributed to Bigfoot, recorded by researchers that are on display at the North American Bigfoot Center. The use of ambient sound was also inspired by the stop motion animated television series, Shaun the Sheep directed by Nick Park.

The Shaun the Sheep television series features a herd of sheep and other farm animals who play mischievous pranks. It is a humorous and comforting animated show with no dialogue, rich narratives and ambient sound.

Slide 18: I was also inspired by Rankin Bass Productions, specifically their 1964 film Rudolph the Red Nosed Reindeer. The abominable snowman that Rudolph meets, named Bumble, was very influential in the development and design of my characters.

Ichiro Kumoro is the artist responsible for the design and creation of the Bumble character, who is portrayed as a scary wild-man-creature that is almost as cold in character as he looks. However, the Bumble puppet, with its scary qualities of having sharp teeth, and a tall stature, also has friendly qualities. The balance between representing a scary monster and a friendly guy is effective and has largely inspired the style of my characters.

Slide 19: Aside from gaining inspiration and research for the creation of this film, the pre-production process involved lots of iteration.

Slide 20: After I gathered inspirational sources and a general concept of what I wanted to portray, I started creating my narrative, by drawing storyboards.

I physically and digitally drew storyboards to map out the shots I needed for production.

I drew storyboards several times to figure out how different scenes would fit together and look in their finished form.

Slide 21: While drawing the storyboards, I also focused on creating continuity between scenes early on, while refining my animatic.

An animatic is a video compilation of storyboards with music and timing that would be as similar to the final film as possible.

My animatic and storyboards served as my guides for creating my project timeline and to do list. I referred back to my storyboards and animatic often throughout the production process. This helped me to be efficient and clear-minded about what I was making.

Slide 22: I began my production process with puppet fabrication.

Slide 23: For the construction of Ember and Lumi I created many character design concept sketches before deciding on a final version to the build wire armatures.

Slide 24: In looking for non-toxic materials for the bones and body blocks of these armatures I used PCL plastic, which is non-toxic moldable plastic that is more environmentally friendly to the environment than other options because it can be molded over and over again.

Their armatures have back rigging points, and magnets in their feet for stability.

Slide 25: For their outer construction I used felt for their faces, hands and feet. For Ember's fur I used a thrifted stuffed animal monkey that I took apart and sherpa fabric for Lumi's fur.

Slide 26: Set Construction

Slide 27:I created seven sets for this film, which was challenging given my time and space constraints. I rented a studio space on campus for fabrication and animation. While making the sets I learned to consider materiality in terms of aesthetics and functionality for actual animation. It would be easier to use cardboard to build a solid structure, but then how do I incorporate the necessary steel to tie down my magnetic footed characters? Although my puppets also have rigs to hold them up, I primarily relied on their magnetic tie downs, to minimize post production editing.

This choice resulted in the challenge of adding metal to my sets, to enable functionality.

Slide 28: Going into the construction of the sets I had a general idea of how I would build them but often had to tweak my ideas and do a lot of material experimentation, and trying out ideas from my mentor Christiane.

I completed many material tests at home prior to starting the final set construction because my materials were difficult to transport on public transportation or they were expensive. Throughout the set design and building process I used as many eco-materials as I could. As well as items that could be reused or repurposed like recycled cardboard boxes, newspapers, moss, twine, paper, and household trash.

Slide 29: For the forest set I used several layers of cardboard, paper mache, and joint compound to ensure it was solid enough for animating. The most challenging part of this set build was preparing the metal to hold the puppets upright. I used washers and hammered in nails for Ember's magnetic feet to stick too.

Slide 30: I created the forest floor using separated and cut up twine to look like moss, and dirt. (Point out forest floor/look at it) I cut out fronds from paper, painted them and hot glued them to the forest floor for ferns. The trees are made from paper tubes, spackle, acrylic paint, moss, wire and paper mache.

Slide 31: I had a lot of fun building this set and also encountered many challenges. Including transportation of the set from the spray painting area on campus to my studio to the animation studios on the 6th floor for animating, I recruited friends to help me carry the set to its necessary working locations.

Slide 32: Another challenge I faced while building this set was color matching. I kept looking at photos of bright green ferns in the forest, so I cut my ferns out of light green cardstock, and had to do several layers of paint on the forest floor before being happy with the result.

I created the lupine flowers using wire, tissue paper and paint, to be realistic, animatable and cohesive with the world I was building.

Slide 33: The mountains were created in a similar fashion as the forest floor with the same materials, without the need for joint compound as no rigging of the set was required.

Slide 34: The little trees on the mountains were made of twine and twisted wire, similar to the creation of bottle brushes and bottle brush trees for the holidays. I animated the fire by using a bunch of orange LED lights and poly fill. I physically created the lighting by using my phone flashlight during the animation process and added the lightning bolts in post.

Slide 35: I associate Bigfoot with their forest habitat, but as my story developed I ended up with my character in a lot more water than I had expected, truly reinforcing the concept of displacement.

I animated three different forms of water. One of which was developed early on during the storyboarding and pre production phase. As soon as I had settled and started drawing the ocean in my storyboards, I knew I wanted mechanical waves. Originally I was thinking that a hand crank would do the trick so I bought a large piece of foamboard, transparent blue acrylic to laser cut the edges of waves, constructed the sides with cardboard, and wooden dowels to create the mechanism. I made proportional prototypes out of cardboard prior to cutting the large piece of foamboard. The prototypes were functional but the larger scale piece was not because the plastic acrylic wouldn't stay in place, and was shifting too much in all directions.

Slide 36: Through these experiments and mentorship conversations with Christiane I finally settled on this updated solution using wood, steel angles, threaded rods to adjust the waves using more precision, and cut down the piece of foam board to prevent more undesirable movement.

Slide 37: My first iteration of surface water was a blue piece of cardboard with modge podged waves, or strips for animation. I considered using hair gel, fabric, and finally what I settled on, which was slime.

Slide 38: For this sequence I used a glass multiplane, which as seen here, is a rigged camera with layers of non reflective glass for animation. I used clear blue acrylic for animating the underwater scene as well as adding a blue hue to the slime surface water animation. I wanted the water to be as cohesive as possible, while considering that Ember was traveling through different oceans that behave differently, which ultimately changes their look as well. I had a lot of fun animating with the slime, and the different props that I created.

Slide 39: When thinking about the props for this montage sequence I wanted them to be recognizable, commentary and reflective to the objects found floating in the ocean. Which is why I chose a surfboard, oil barrel, and inner tube. I used a piece of foam board that I had on hand from Scrap. Cardboard for the oil barrel and produce bags colored with a pink alcohol marker, glued with hot glue to create the inner tube.

Slide 40: (photo of inner tube)

Slide 41: The icebergs, as you may already have noticed, were created using styrofoam. I was an RA over the summer and we ordered some new shelves for the office that came with these large pieces of flat styrofoam, so rather than throwing it away, I held onto it knowing that I could figure out some way to use it in a project.

Slide 42: I painted two sky backdrops, one light blue as a daytime sky and the other a sunset. I painted both of these on an unfinished canvas on the wall. I learned to put something behind the canvas to protect the wall if painting inside a rented apartment instead of a studio wall…

Slide 43: I grappled with creating the final montage scene where Ember walks from from place to place, because I wanted a scrolling sense of movement. Which is why I decided to create the scrolling motion through compositing and the final editing post production process. I did a green screen test to see what the quality and ability to use green screen would be because of Ember's fur. After one green screen test, I animated a walk cycle, which is essentially like walking on a treadmill. I had to animate this walk cycle several times to get it right because I've never animated a walk cycle like this before. Then I painted a long piece of canvas, scanned it and composed it as the background.

Slide 44:

Slide 45: The most difficult part of the animation process for me was keeping consistent characterization with identifiable movements, such as walking styles.
Another challenge was lighting the sets themselves. I particularly struggled with lighting the scenes that take place in the evening because they are dark yet, the characters still need to be

seen. I had to re-animate the sequence where Ember Runs from the fire twice because the first time I animated this sequence it was too dark.

Slide 46: I used three different studio spaces on campus to animate, from the downshooter, the advanced stop motion studio, and the multiplane studio.

Slide 47: As I started animating I began compiling footage into a premiere project file, and editing after I animated a shot. I used a lot of the same sounds from my animatics that I found for open source use and from my own archive of recorded sounds.

Slide 48: I plan on submitting this film to film festivals. After submitting and hearing back from film festivals, I hope to further its outreach by giving it to local environmental and climate organizations.

Slide 49: This film cost nearly $1,055.

$805 of which was out of pocket and $250 of which was granted.

I was able to stay fairly close to my original budget for the film but ended up being 80 dollars over.

Slide 50: This is the most conceptually and physically demanding project I have ever done!

I am grateful for everyone who supported me through this!

Thank you mom and dad, for your continued support.

Thank you Christiane for being a wonderful mentor.

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Thank you all for coming!