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LIFE WITHIN THE RED RIVER GORGE, AN ARTISTIC EXPLORATION OF ANTHROPOGENETIC CHANGE IN CAVES

by

MARCY DAVIS

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Parents, for all you do—and the thoughtful way you do it—thank you. My dearest sister Aspen, thank you for always answering your phone when I call. To my Capstone advisor and for the support I received with UTA Glass and Sculpture department, with deepest gratitude, thank you for believing in my capabilities and artistic vision. Lastly, thank you to my cherished friends and beloved pets. Alone, only a little can be achieved; together, change is brought about.

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ABSTRACT

LIFE WITHIN THE RED RIVER GORGE

AN ARTISTIC EXPLORATION

OF CAVES

Marcy Davis, BFA Art

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Faculty Mentor: Darryl Lauster

At the Red River Gorge in Kentucky, fauna and flora above ground are abundant due to it being a National Natural Landmark; however, this is not the same for underground. Caves play a vital role in understanding and predicting climate change, yet they are becoming detrimentally altered. Currently, cave features are being destroyed, which results in a loss of geological history. An art exhibition called, *Anthropocene*, at the UTA Gallery West was created to enlighten viewers on the significance of caves. Cave art installations of glass blown stalactites, expanding foam flowstone, and textile metal cave coral were installed to visually impact viewers on the geological history within caves. Through this exhibition, viewers learned or relearned the importance of cave history and discovered how caves are threatened by climate change. The viewers were also given the opportunity to give feedback on how the exhibition impacted their perspective on caves.

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CHAPTER 1

INTRODUCTION

1.1 Through the Concept

A sculpture major is trained in conceptualizing ideas, thoughts, emotions, and senses in their art. A central theme of the body of artwork discussed here (conceptualized and created by Marcy Davis) is discovery of the beauty of texture and the allure of the abandoned and decayed. The focus is on how texture contributes towards the natural process of decomposition and fragility in a landscape. There are scenes of abandonment, growth, and decay through mixed media sculptures, creating pieces that are both enchanting and unprepossessing. This artistic concept is what led to an interest in caves. Hidden within the dark, caves are gradually growing through their natural erosion. An interest in depicting textures created during and after the erosion of geological formations was the foundation for this Capstone project. The first step was to explore caves and investigate this interest. There became a curiosity through exploring caves, focusing on if people could understand the complex collision between the geological past and the present state of the climate, which cave features encompass. Through reflecting upon the past geological features, acknowledgement of similarities between humankind and their natural surroundings could perhaps begin the preservation of caves.

1.1.1 Going Under

Caves are becoming detrimentally altered and are a key element in predicting the future climate yet are being destroyed by tourism and rising temperatures. Hidden historical records within caves, such as isotopes, are preserved within caves and allow scientists to study speleothems. Studying isotopes in geology is known as geochronology, which is the following migration of isotopes that are produced by radioactive decay within geology. With the help of isotopes, information such as the age of rocks or previous conditions of the planet can be discovered. Various types of isotopes (parent, daughter, or radioactive) will contribute to different geological findings. Speleothems is a generalized cave feature that is characterized to form due to the deposition of minerals in water. Flowstones, stalactites, soda straws, or stalagmites are all types of speleothems. As the temperature inside caves gets warmer and CO_2 (carbon dioxide) levels rise, the data within isotope records are damaged. For example, in Kentucky the average temperature for caves is 54 degrees Fahrenheit, yet this temperature has been rising due to climate change. This change disrupts the cave ecosystem and geological history.

Recent awareness of this problem with caves raises the question: How can ecotourism take place underground as successfully as aboveground tourism? Historical sites or federally protected land help preserve the wellbeing of ecosystems that could easily be damaged through human interference. Places such as the Red River Gorge in Kentucky excel at this goal. Above ground, fauna and flora are abundant due to it being protected as a National Natural Landmark. Despite the popularity of the Red River Gorge, tourists are still mindful of protecting the nature around them. However, this is not the same underground. Fun cave tours are advertised for the summer and have become extremely

popular. Naturally, humans emit CO_2 as they exhale, and this dense gas will settle deep inside a cave. Over time, CO_2 damages cave features. Other types of adventures, such as driving and boating tours in large or flooded caves, further add fumes and gasses to the fragile cave ecosystems. High adventure experiences like cave high-lining and zip-lining propel copious amounts of people farther into caves than has been possible before. Thus, tourism in caves expedites the processes that naturally breakdown cave interiors. Although above ground environmental protection should be praised, a new focus must be brought to attention. That is, realizing what has been unnoticed in the dark, the health and damaged of caves, due to cave tours.

1.2 The Realization

Although the preservation of caves is needed, this issue was overlooked, and verification of the topic was needed. The sculptress Marcy explored three different caves in the summer to learn if this issue was accurate. After examining and conversing with park rangers and cave experts at two caves in Kentucky, Red River Gorge Cave and Mammoth Cave, and the Cosmic Cavern in Arkansas, deterioration was apparent in all three caves despite location differences. Caves are becoming affected by human interferences through tourism and with their contribution towards the carbon cycle. Fragility in a landscape is apparent inside of a cave, and through art, it is possible to spread awareness of the dark issues that threaten the underground.

CHAPTER 2

LITERATURE REVIEW

2.1 The Creation of a Healthy Cave

Limestone is a type of durable sedimentary rock found on the sea floor. It has high porosity and permeability and is prone to produce underground caverns. Caves form by the dissolution of limestone. Rainwater will collect CO_2 from the air as it percolates through soil and will turn into weak acid (US Department of Commerce, 19). Over time, limestone will slowly dissolve along the joints, known as fractures, which in time can become enlarged enough for a cave to form. A healthy cave will have an average annual temperature for its region. Therefore, caves will have the same temperature as the shallow groundwater or soils. This is another principal factor with a cave, healthy air circulation. Overall, cave air movement is caused by the difference in barometric pressure between the surface and the cave. The geochemistry of airflow within a cave indicates that the larger a cave's volume is, the more substantial the flow of air in and out will be (De Freitas, 387-391). If a cave has minimal openings, it could be prone to having poor air circulation. In addition, caves will contain both light and dense gases. Gases such as N_2 (nitrogen), and CH_4 (methane) are light gases whereas Ar (argon), and CO_2 (carbon dioxide) are denser gases. Denser gases heavier than air have a slower diffusion rate, resulting in higher concentrations in areas of stagnated flow (Lenkowsky, 10). A concern arises when too much dense gas accumulates in a cave, which damages cave features.

2.1.1 Discovering the Unseen

Chemical erosion is active in summer with cave downdraft and less active in winter due to updraft. Tourism in caves occurs year-round (particularly during the summer) and traps CO_2 in the cave's lowest parts. As CO_2 accumulates in the summer due to cave tours, the natural downdraft will additionally promote the dense gas to stay in stagnate airflow areas. It will not be until the fall or winter, when it is significantly colder outside the cave, that a natural updraft will significantly help dense gas such as CO_2 to escape (Kukuljan, 15). The graph (Figure 2.1) depicts a general cave airflow between summer and fall. To further elaborate, popular cave tours taking place in the summer will affect the natural CO_2 levels in a cave.

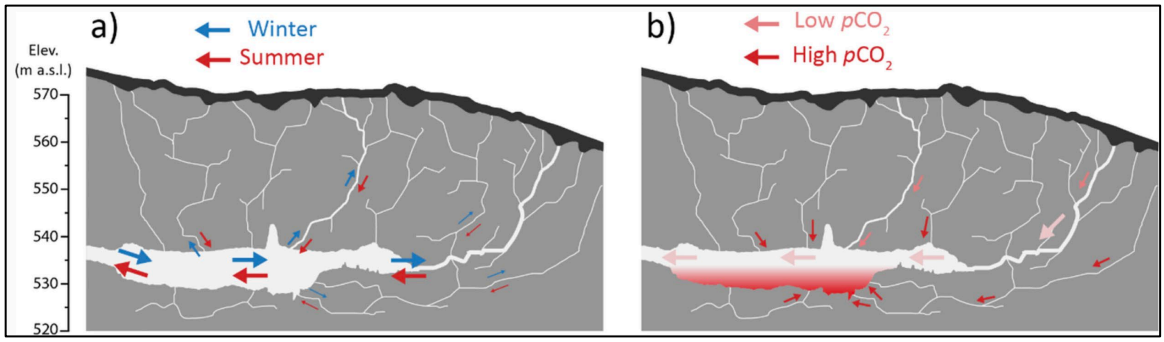

Table 2.1: Co2 Dynamics in a Cave Atmosphere (Kukuljan et al., 14)

The study of cave climates has been a neglected aspect of microclimatology, yet studies must be done to properly understand cave flora and fauna. It is crucial to understand the climate of a cave with the air exchange with the outside environment. This is because a cave's atmosphere is crucial in promoting the growth of stalactites. As cave tours become popular throughout the summer, the natural equilibrium between dense cave gases will disrupt the flow of growing cave features. Naturally, stalactites form as water percolates through limestone and drips from the ceiling. Cave water carries dissolved $CaCo_3$ (Calcite) and is dissolved by HCo_3 (Carbonic Acid) in the water. CO_2 will dissolve HCo_3 in water.

As the water reaches the air in a cave, CO_2 evaporates from the water and forces $CaCo_3$ to deposit as stalactites which is seen in Figure 2.1. One natural way that CO_2 will naturally appear in a cave is through bat guano. In deep undisturbed areas of a cave, bats will produce the guano that will encourage stalactites to form (Lenkowsky, 13-14). Unmindful cave tours will raise the CO_2 levels in a cave, disrupt the privacy of bats, and through time irregulate the growth of cave features. Thus, natural cave features and significant geological records inside of caves will be damaged (US Department of Commerce, 20).

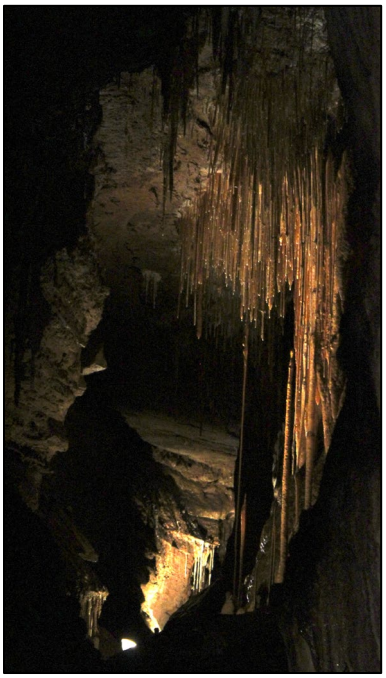

Figure 2.1: Displays Healthy Stalactites Growing Deep in a Cave

Similarly, rising temperatures in caves is an additional threat. As warm downdraft airflow occurs in the summer, the limestone and cave features will erode at the cave opening. This is a natural process, yet as the temperature rises in a particular area, erosion will be more intense in comparison to previous years (De Freitas, 396-397). In sum, the speed of erosion will increase as temperatures for that region rise. This is partially due to the carbon cycle. Naturally, the carbon cycle will regulate the Earth's temperature and keep

carbon levels balanced through sequestration. However, if there is an abnormally scorching summer and cave tours are extremely popular, additional temperature of the cave could increase (De Freitas, 390-392). This is due to the additional sequestering of heat through rocks and additional $C0_2$ being emitted by humans in caves (Lenkowsky, 13). A reason for concern for erosion in caves is the damage it will have on geological records stored within the rocks and the various life forms within the cave.

2.1.1.2 Learning from the Hidden

Isotope records, for example, can be an accurate way to measure, compare, or reconstruct climate history. This data is used to study the interactions between the biosphere, atmosphere, ocean, and sun which will overall influence the climate. All these historical records are damaged by intense erosion and human vandalism in caves. To understand the geological importance, a further examination of isotopes must occur. There are two carbon isotopes, C^{13} (carbon 13 which is heavy), and C^{12} (carbon 12 which is light). Both isotopes are found from marine organism shells, influenced by upwelling of ocean waters, respiration, and photosynthesis (Jauhiainen, 19). If there is an increase of C^{13}, this would indicate productivity in the ocean, which means there was a lot of photosynthesis. In addition, a high value of C^{13} can also indicate that erosion from the land has decreased. Soil has a negative C^{13} value because it contains the remains of dead plants, and as the soil drifts into the ocean, more C^{12} will be placed in the water. Alternatively, if there is little photosynthesis occurring in the water, then there will be more C^{12} molecules in the water (US Department of Commerce, 20). Thus, more C^{12} can be found in the shells of marine organisms and means that there were not as many organisms living in the water (less excrement and fewer dead organisms that have fallen onto the seafloor). Additionally,

when a volcano is active, the emitted CO_2 is enriched in C^{12} which allows geoscientist to track the volcano activity through history, due to the negative C^{13} values (Jauhiainen, 22-24). Isotopes allow geoscientists to discover sea levels through time and how it is related to weathering over the years.

2.2 Hanging onto Data

Speleothems are structures formed in a cave due to depositing minerals from water. It is crucial to note that speleothem carbon isotope records can be correlated to regional temperature reconstruction of historical periods. Famously known speleothems are stalactites and stalagmites. As local and global climate continues to change, looking back through history at similar occurrences through isotope records, can further develop geoscientist's understanding of current climate change. Speleothems are fragile cave features which easily become forever damaged if touched, broken, or chemically contaminated, yet are ineffable in geological importance. Studying of CO_2 within caves and human interference is still under research, meaning, studying cave isotopes is not a popular field of investigation, but it has provided some insight. One discovery is that speleothems can capture CO_2 concentrations. High concentrations of CO_2 in soil gas will lower C^{13} because of the increase of organic carbon in the system. Speleothems capture this change as they form through drip water. This process could explain the higher C^{13} in colder periods and lower C^{13} in warmer periods. Thus, providing records of past changes in soil respiration and with the carbon cycle (Jauhiainen, 18). This information is crucial for geoscientists to understand as anthropogenetic change is undergoing.

2.3 A Breath, a Touch, a Look from Above

Through passing years, caves have become damaged due to human interferences. Emitting CO_2 when breathing, or throwing dynamite inside of caves, has impacted the health of caves. Fragile features that have grown for thousands of years become damaged or lost because of this. As mentioned above, stalactites hold precious isotope information, yet become affected by the disruptive CO_2 levels in a cave. Their structure provides information, and cave tours disrupt bats that live in the caves and influence the natural CO_2 emissions. By regulating ecotourism, cave tours could occur based on the location of the bats and revolve around the seasons that bats will be in the cave. Another cave feature called flowstones has also been drastically affected by the influence of humans. Flowstones, form where water constantly flows against the wall or floor of a cave. Flowstones become rounder as they thicken in growth and form draperies on the wall or floor of a cave. Rich in $CaCO_3$ (calcium carbonate), water flows along the surface, depositing a layer of calcite, making flowstones naturally translucent or white in hue (Kukuljan, 11). Unfortunately, flowstones are tempting to touch, due to their shiny nature. If a flowstone continuously gets touched by the oils on a human finger, then it will transform into a dark pigment. Through the years as dynamite was used in caves, the remaining carbon drastically affected the growth of flowstones. Once a flowstone becomes exposed to carbon or gets continuously touched, it will never be able to properly grow the same. Discoloration could be due to other minerals being deposited in the water (iron turns it red), however black or gray hues are the results of human interference, which is seen in Figure 2.2. Therefore, if a flowstone becomes contaminated, the growth will be stagnant or drastically slower.

Figure 2.2: Flowstone with Unnatural Black Pigment and Draperies

Looking above, cave coral, also known as cave popcorn, can be noticed through the short stalks and the condensed patches that they form from up above, as seen in Figure 2.3. In fact, this cave feature is still a mystery to geologists and these corals are sprinkled throughout a cave. These minuscule features require specific conditions to flourish (Lenkowsky, 15) Although these conditions are unknown, two theories have been created. Cave coral either forms in still cave pools or subaerially. In all, they could be a product of surface flow, drip water splash, seepage, condensation, or capillary action. Geologists know that cave coral is an excellent indicator for subtle air currents that waft through deep caves. This is because evaporation will be fastest on the upwind and cave coral can be seen on one side of the updraft like in Figure 2.4 (Kukuljan, 23-26). Big wet and lightly breezy caves are the ideal setting for cave coral, yet with the rising of cave temperature, this ideal setting for cave coral can easily become damaged. Damaged cave coral occurs when there is poor air flow in the cave, rising cave temperatures, and lack of waterflow (US Department of Commerce, 22-23). As the carbon cycle changes within the anthropogenic period, cave temperatures in certain regions will rise and minimize cave popcorn's growth.

If the airflow in a cave is too strong, then cave coral could be at risk of erosion; however, if there is too little airflow then the cave popcorn will not be able to properly form (US Department of Commerce, 30). Overall, the formation of cave coral is still unknown and could forever be unknown if proper ecotourism and environmental care are not practiced.

Figure 2.3: Cave Coral Closeup

Figure 2.4: Cave Coral

CHAPTER 3

METHODOLOGY

3.1 An Artistic Encounter

Discovering the endangerment of caves promoted an interest in cave sculptures and a desire to combine scientific data with art to create an art exhibition. A co- exhibition called, *Anthropocene*, at UTA Gallery West was designed around the issues between humans and the environment. Anthropocene is a term used to address the current geological age viewed as the period where human activity has been the dominant influence on climate and the environment. This was a co-exhibit with fellow artist, Michelle Vo to propose, design, and install. Both artists created a body of work inspired by, *Anthropocene,* which was presented at the gallery between November 7- 11, 2022. Creating a body of work and directing an exhibition is an undertaking, and in addition, it is challenging to create a hybrid between art and geology. Thus, more research was needed.

3.2 Learning the Crossover

A known American photographer named Eliot Porter is noted for his detailed color images of landscapes and birds. He created a series of fauna and flora over the Red River Gorge that showed the unique life living within the Red River Gorge. His use of color, tone, and texture brought awareness of how to depict monumental cave features. A private meeting with an archivist at the Amon Carter Museum of American Art, allowed examining of the photographs in person to understand the abrasive rhythm within Porter's compositions. Another famous artist called Olafur Eliasson, is known for his large-scale

installation art that employs materials like water and light to enhance the viewer's experience. Often enough, his work offers reflection or solutions to the issues of climate change and with renewable energy. Eliasson's conceptual ideas and combination of environmental preservation and installation art inspired this capstone creation of a body of work that combines geology with sculpture. While in Arkansas to visit caves, the sculptress Marcy visited Crystal Bridges Museum of American Art to study Frank Lloyd Wright's architectural work. He is known for organic architecture and incorporating fertility and boldness into his designs. Marcy's work at Gallery West is the largest installation that she has ever created. Understanding Wright's usage of space helped teach her about key principles within installation art.

3.3 A Flowing Motion

It began with flowstone (Figure 3.1 and Figure 3.2). Creating three largescale 3-4.5 feet tall by 3 feet wide foam structures that were glossy was the first installation to complete for *Anthropocene*. Work began in September and concluded at the end of October and consisted of repeating tests and exploration with foam. Artists must experiment with material to understand it, to communicate tones through it, and to be able to incorporate the material into their concept. Those actions are known as material identity and are essential with acknowledging the artist's intentions through the material. After all the tests, expanding fiberglass foam was the most promising foam for replicating flowstone sculptures. This foam has its own personality just like a human. Meaning, by testing it, the discovery was made with the most successful way to mix the foam, how the foam should be poured to capture the desired motion and drips, and how to sculpt the foam when it dislikes being touched. After understanding how to use the material, foamboards were

carved with a heat knife to sculpt the desired flowstone shapes. An abrasive was sprayed on the foamboards, and trash bags were draped over to promote the foam to flow. Similarly, to the natural creation of a cave flowstone, this process was repetitive and demanded layers of buildup. Over time the artificial flowstone became rounded just like a natural cave flowstone structure. After the three foam structures were sculpted, a pigment was incorporated to further visual interest. Additional tests were done on the foam such as painting, blending pastel, and rubbing ink. The most successful test was the usage of blending pastel on the expanding foam surface. This allowed the foam structures to accurately depict the natural hues of off white, cream beige, and washed yellow that natural flowstones consist of. To create a glossy sheen, layers of resin were applied over the surface. The reaction between expanding foam and resin promoted the resin to separate into small balls which appeared as natural water droplets that occur on flowstones. Intentionally, three flowstones were created to be placed on the floor to encourage the viewer to walk amongst the cave features. They varied between four feet to two feet in height. Both types of flowstones, tufa, and travertine, were apparent in this installation. When looking up closely, the viewer can notice the spongy texture that tufa is known for. In contrast, other areas showed small stalactites, cave bacon (which are sheetlike deposits of $CaCo_3$), and stalagmites that are characterized with travertine flowstones (De Freitas, 383-385).

Figure 3.1: Flowstones

Figure 3.2: Flowstone Close Up

3.4: Dripping Growth

Over two months, 70 stalactites were created for a hanging light installation, which is shown in Figure 3.3. Individually, glass blown stalactites were sculpted and coldworked. Each stalactite was made of translucent glass and sculpted with a tool called diamond shears. A stalactite between eight to twelve inches included two gathers of glass and stretched into a long teardrop shape. If a stalactite was between 15 to two feet, then it would require three gathers of glass, as shown in Figure 3.4. A gather is a glassblowing term for

referring to a mass of molten glass at the end of the blowpipe. It is called gather in reference to the artist gathering more glass from the 2,000-degree Fahrenheit furnace. A gaffer, who is known as the leader when creating work, will shape the glass as their assistant helps them. A stalactite requires popping a bubble in the glass and typically requiring two gathers prior to shaping the glass. When shaping the glass, the gaffer will use diamond shears to create indents on the form as the assistant holds the pipe securely. Once the shape is achieved, the gaffer will thermally shock the glass to create a crackling design on the glass. This crackle is on each stalactite. In detail, the glass must be extremely hot and dipped promptly into a container of icy water, and then immediately placed back into the warming hole. This glassblowing technique requires skilled knowledge in heating temperature and control. At the beginning of this process several blown stalactites were shattered when dunked in the water, due to too much of a thermal shock. As the stalactites become realistic through the crackling, the installation becomes a reflection of not only the water needed in the process of making the stalactites, but with the water needed for cave stalactites to form as well. The installation connects the importance of water and heat needed for the cave and glass-blown stalactites to form. A large board of wood was shaped into a curved triangle to mimic the curves and motion on top of a cave. Each stalactite was individually measured on the wood, and a specific hole was created for that stalactite to fall through. The wood was measured to fit a specific corner in the gallery, and the stalactites were irregular in length and width to create an organic tone. Warm tone lights were specifically placed above the glass blown stalactites to illuminate them when the viewer goes underneath the hanging installation. The diffused warm tone light created a glowing atmosphere to provoke the curiosity that one would have when in a cave. Figure 3.3 displays the overall installation

with the exclusion of the warm tone light shining on the stalactites. Overall, the installation is eight feet in length and five feet in width. Thus, fully inviting the viewer to walk beneath the glowing stalactites and reflect upon the important history within a simplistic stalactite.

Figure 3.3: Installation of Stalactites

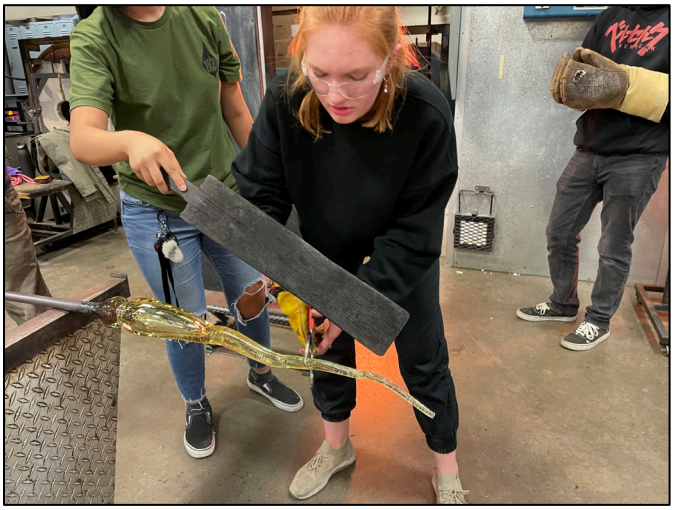

Figure 3.4: Marcy Davis, Creating Glass Blown Stalactites

3.5 Twisting Coral

A three-foot metal hallow organic form with a round cement base was inspired by cave coral. Overall, it took a month to complete, due to the size and detail of this work. A distinctive cave coral feature are pink droplets that twist as they hang from the ceiling. A light pink polymer clay was individually rolled out and twisted to mimic the shape of the droplets growing from the ceiling. A detailed photograph below, Figure 3.5, displays the pink polymer clay twists and overall image, Figure 3.6, of the sculpture. Fake moss was attached in reference to the artificial lights in caves, due to cave tours, and the unnatural growth in a cave. A lighter shade of moss was attached as reference to schistostega pennata, which is a type of deep green moss that grows inside of a cave. A natural red patina is on the metal like the unnatural contamination minerals have on cave coral. This patina is not sealed which means that as time goes on, the patina will change and travel among the sculpture. Through time, this environmental sculpture will visually depict the effect cave coral undergoes with human interferences. Meaning, that the natural gray metal will transform into a red hue over time. Intentionally, this work was not suspended but created on a tall organic curved form to force the viewer to move up and down to see various features within the work. This action that the viewer is encouraged to do is like when tourist in a cave will be looking along the walls and ceiling at cave coral. They will be forced to move around the features to understand what they see. It is tempting to touch, due to the artificial moss on the sculpture, which is like the temptation to touch the coral when in a cave. Similarly, to the flowstone installation, this sculpture tempts the viewer by appealing to the senses. The compulsion to touch the work, or the act of touching the artwork, is reenacting the events that occur on unmindful cave tours. The clay is intentionally loosely

attached so that if it is touched or recklessly moved, the cave features on it will fall off. This is in reference to subtle actions that lead to cave damage which can occur in the interior or exterior parameters of a cave. Although it is discouraged to touch the artwork, the action of touching the cave features enhances the understanding on the hidden issues within cave tourism.

Figure 3.5: Metal Textile Closeup

Figure 3.6: Growing Together

3.6 The Underground to the Surface

As the three main sculptures were completed, designing the gallery space became the next challenge. Cohesively designing an exhibition becomes an artform, intending to place artwork beside each other, what tone of lights to use, or the balance with negative and positive space throughout the room. It is recommended for the artist to do a cold read

with their work to see the art as how the viewer will see it when installing work. A cold read promotes the artist to understand signals and assumptions made by the viewer when they see the work. It emphasizes the connections and misassumptions with the artwork. Glass blown stalactites were suspended on a ceiling corner to promote the viewer to be walking into a narrow walkway similarly to a cave, as seen in Figure 3.7. The flowstones were grouped together to promote the viewer to walk around the work as if they were in a cave. Intentionally, they were narrowly spaced together to create the tight proximity shared between tourist and cave features. Emotional awareness and nervousness of being too close to the art symbolize the lack of awareness unmindful tourists have while in a cave. The cave coral sculpture was sitting on a pedestal half a foot below eyesight. This encourages the viewers to move up and down along the piece as if they were in a cave looking at the cave features. As viewers travel along the sculpture looking at the work, the proximity between the viewer and the sculpture becomes intimate. The harmful release of CO_2 from the viewer is unnoticed, yet has been detected in the art, similarly to CO_2 levels with cave features. However, with a cave it will not be until passing years go by that CO_2 damage will become apparent.

Figure 3.7: Installed Stalactites

CHAPTER 4

DISCUSSION

4.1 Through One's Eyes

As the research progressed with cave art, it was discovered that no artist has ever created environmental installation work specifically about cave features. Artists have created sculptures for caves or made cave paintings, yet no visual artist has made underground features of caves above ground to spread environmental awareness. Viewers were given the opportunity to voice their thoughts on the exhibition *Anthropocene*. Through the exhibition, viewers learned or relearned how tourism and climate change are damaging caves. Viewers had insight on the impact of ecotourism and the fragility of how fragile large cave features are. It was discovered that people are interested in cave issues and in learning the subject conveniently through visual depictions with sculptures, rather than through research papers. Furthermore, cave installations can be a tool to educate the public on ecotourism and cave preservation, without extensive statistical data.

CHAPTER 5

CONCLUSION

5.1 Shining in the Dark

Viewers are interested in learning science through art. Depicting the beauty, history, and wonder of caves through art allows the viewer to realize the significance and importance of geological features. Learning science through art appears less intimidating and time consuming than reading research papers. It could be argued to be more impactful than learning through reading due to the recollection of their experience when they were in the exhibit. It also allows a diverse group of people to be exposed to cave formations since not everyone can explore caves for assorted reasons. Additionally, it promotes the experience of being in a cave without the negative environmental effects. Regulating tourism through practicing ecotourism in caves will help preserve the limestone and allow scientists to educate the public on combating climate change. Just as time gradually passes by with humans through subtle ageing, discrete decay goes unnoticed in caves. Unique characteristics in caves are cherished due to their beauty and mysterious growth. Within the quietly unnoticed peculiar process of gradual decay, through time, the viewer then realizes that we too are gradually decaying and have a peculiar beauty within our own decay.

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BIOGRAPHICAL INFORMATION

Marcy Davis is receiving an Honors Bachelor of Fine Arts in Sculpture and a minor in glass. Through her time at University of Texas at Arlington, she has been vice-president of clubs on campus and a manager at Starbucks. She was a glassblowing instructor this summer in 2022 in New York and plans to incorporate glass blown and glass castings with her bronze installations. Her artwork has been published in articles and on display within the metroplex. Marcy is graduating with Summa Cum Laude and plans to pursue her Master of Fine Arts in Fall 2023. She intends to always be learning in her field and within time, share her passion with others through teaching as a professor.