

AN INTERPRETER'S GUIDE TO FILMMAKING

by

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TABLE OF CONTENTS

1. CHAPTER ONE - INTRODUCTION.....	1
2. CHAPTER TWO - INTERPRETATION IN FILMS.....	6
3. CHAPTER THREE - BUILDING AN INTERPRETATION.....	14
4. CONCLUSION	24
REFERENCES CITED.....	26

ABSTRACT

Politically divisive topics like climate change are notoriously difficult to effectively communicate to the public. Using a different communication approach called interpretation within the filmmaking process, we can bridge the gap current climate change films have today with their audience. Interpretation means “a mission-based communication process that forges emotional and intellectual connections between the interests of the audience and the meanings inherent in the resource,” according to the National Association of Interpretation (*What is interpretation?*). In this paper I will analyze the history behind interpretation and the methodology in implementing this communication style within films. Through the works of various filmmakers such as, *My Octopus Teacher* (2020), *Ice on Fire* (2019), and *Ocean Souls* (2020), my own experience creating an interpretive short film, *The Dolphin Dilemma*, this paper will discuss how specific interpretive communication methods can take politically divisive subjects, like climate change and more effectively communicate science within documentaries.

CHAPTER ONE - INTRODUCTION

The act of interpretation can bridge the gap of climate change discussions left by filmmakers in this era of disinformation through its mission-based communication methods. Interpretation has been adopted by naturalists, environmentalists, educators, zookeepers, and museum curators as the main form of communication to the public since the early 1870s. This form of communication was first defined by the naturalist John Muir in 1871 in his notebook stating, “I’ll interpret the rocks, learn the language of flood, storm, and the avalanche. I’ll acquaint myself with the glaciers and wild gardens and get as near the heart of the world as I can” (Mackintosh Chapter 1: Before NPS). This need to explain the natural world was the first step in the creation of interpretive storytelling.

Interpretation means “a mission-based communication process that forges emotional and intellectual connections between the interests of the audience and the meanings inherent in the resource,” according to the National Association of Interpretation (*What is interpretation?*). Interpretation is often incorrectly defined as a synonym for education. There are specific differences that set interpretation apart from education. First, interpretation must be relevant, which means it must be created around the wants and the desired experiences of the visitor and the organization that is creating the interpretation. All interpretation must have a theme, which means it must be organized around one concise and complete idea. Finally, all interpretation aims to enhance the public’s enjoyment of the organization and benefit from the organization. The creators of interpretation works accomplish this goal by making the interpretive element focused on increasing the public’s understanding of the organization’s resources and making the public more aware of its values (*DPR Operations Manual: Interpretation and Education*).

The goal of interpretation is not for visitors to recite facts about specific events in history or to be graded on that knowledge to help them be competitive in a specific field of study, which is the basis of education stated by the Department of Education within the United States (*The Federal Role in Education*). Interpretation's sole focus is for the organization to create an emotional experience that will last with the intended audience and encourage the audience to do something for that organization, whether that is to donate, visit again, or share their experiences with others.

Interpretation is all around us whenever you step into a park, museum, zoo, or even a university and it has its own planning in order to create the desired experience from the organization that is using it. For example, Clemson University created an interpretive plan for the Kinard Annex to focus on honoring the service of Francis Marion Kinard, dean of many different colleges within Clemson's history. Clemson named the physics and astronomy building after Dean Kinard and created a 2' x 3' interpretive panel about him in the building that created a stop on the cell phone tour for campus visitors. This panel not only highlights the history of Clemson, but the current research projects and academic achievements coming out of the physics and astronomy departments. The goal for this interpretive panel was for visitors to gain the knowledge of the history behind the naming of the building, what Clemson offers students thinking about joining the physics or astronomy departments, and what current Clemson students and faculty are working on to further entice the students to come to Clemson (Burns et al.). Since interpretive stories can be highly varied, the National Park Service sought out rules that would distinguish this communication style from pure education. Freeman Tilden, a playwright, and fiction writer turned his attention to writing about the national parks and their importance to

America's heritage in the early 1940s. He first published the book *The National Parks: What They Mean to You and Me* in 1951 (Pittleman). After this publication the National Park Service Director, Newton Drury, asked him to work with the National Park Service (Bacher et al. *Foundations of Interpretation Curriculum Content Narrative*). In 1957, he published *Interpreting Our Heritage*, which is still used around the world today for proposing the six basic principles in creating an interpretative story:

- I. Any interpretation that does not somehow relate what is being displayed or described to something within the personality or experience of the visitor will be sterile.
- II. Information, as such, is not Interpretation. Interpretation is revelation based on information. But they are entirely different things. However, all interpretation includes information.
- III. Interpretation is an art, which combines many arts, whether the materials presented are scientific, historical, or architectural. Any art is to some degree teachable.
- IV. The chief aim of Interpretation is not instruction, but provocation.
- V. Interpretation should aim to present a whole rather than a part, and must address itself to the whole man rather than any phase.
- VI. Interpretation addressed to children (say up to the age of twelve) should not be a dilution of the presentation to adults, but should follow a fundamentally different approach. To be at its best it will require a separate program (Mackintosh Chapter 4: *Interpreting Interpretation*).

Since then, authors have been redefining the art of interpretation building upon Tilden's original principles. The most recent is Larry Beck and Ted Cable's *Interpretation for the 21st Century* published in 1998, which is now seen as the new standard for interpretative storytelling (Bacher et al. *Foundations of Interpretation Curriculum Content Narrative*). These are the current fifteen principles that define interpretation today:

- 1. To spark an interest, interpreters must relate the subject to the lives of visitors.
- 2. The purpose of interpretation goes beyond providing information to reveal deeper meaning and truth.
- 3. The interpretive presentation – as a work of art – should be designed as a story that informs, entertains, and enlightens.

4. The purpose of the interpretive story is to inspire and to provoke people to broaden their horizons.
5. Interpretation should present a complete theme or thesis and address the whole person.
6. Interpretation for children, teenagers, and seniors – when these comprise uniform groups – should follow fundamentally different approaches.
7. Every place has a history. Interpreters can bring the past alive to make the present more enjoyable and the future more meaningful.
8. High technology can reveal the world in exciting new ways. However, incorporating this technology into the interpretive program must be done with foresight and care.
9. Interpreters must concern themselves with the quantity and quality (selection and accuracy) of information presented. Focused, well-researched interpretation will be more powerful than a longer discourse.
10. Before applying the arts in interpretation, the interpreter must be familiar with basic communication techniques. Quality interpretation depends on the interpreter's knowledge and skills, which should be developed continually.
11. Interpretive writing should address what readers would like to know, with the authority of wisdom and the humility and care that comes with it.
12. The overall interpretive program must be capable of attracting support – financial, volunteer, political, administrative – whatever support is needed for the program to flourish.
13. Interpretation should instill in people the ability, and the desire to sense the beauty in their surroundings – to provide spiritual uplift and to encourage resource preservations.
14. Interpreters can promote optimal experiences through intentional and thoughtful program and facility design.
15. Passion is the essential ingredient for powerful and effective interpretation – passion for the resource and for those people who come to be inspired by the same (Bacher et al. *Foundations of Interpretation Curriculum Content Narrative*).

When looking at Beck and Cable's principles you begin to understand why this form of communication is still the staple communication style for the National Park Service, museums, nonprofits, zoos, and aquariums. There are two categories of how you can deliver interpretive material: personal services and media or non-personal services. Personal services include a physical interaction with an interpreter such as talks, guided walks, demonstrations, and informal contact. Media includes everything within the park that doesn't interact with a person directly like brochures, newspapers, audio tours, films, and exhibit labels. According to a study in 2003 from the National Park Service evaluating their interpretive media and visitor use, 22% of

visitors sought to interact with personal services, while 62% of the visitors chose to just interact with media (Forist et al.). These data are critical discovery and a unique opportunity for interpreters to use when talking about politically divisive topics, such as climate change.

CHAPTER TWO: INTERPRETATION IN FILMS

Creating a climate change film that is an interpretation is what makes a film impactful and motivational to audiences. Activist documentaries and interpretive stories have a call to action (CTA) which is a “specific and targeted message directing your audience – whether it’s a viewer, reader, or listener – to do something, to take some kind of desired action” (Sassara). CTAs are usually towards the end of the story, come in many different forms, and are referred to in the fourth principle in the Cable and Beck’s interpretation backbone (Bacher et al. *Foundations of Interpretation Curriculum Content Narrative*). A CTA could be simple like a link that prompts you to visit a website or subscribe to the channel to more complicated like asking the audience to vote for renewable energy plans or to recycle plastics properly.

Both documentaries and interpretive stories are seen as successful when their call to action is done by the audience after experiencing the story. That is why the National Park Service requires any interpretation to, “have positive, measurable outcomes that can be assessed” (*DPR Operations Manual: Interpretation and Education*). Without having a measurable call to action, the interpretive film will fall short. Within the film industry most of the measurable outcomes revolve around the box office business, or the number of tickets sold, instead of the CTA placed within the film (*Box office*). But truly successful interpretive films will inspire the audience to do the call to action that the organization places at the end of the film. By looking at recent climate change films, such as *My Octopus Teacher* (2020), *Ice on Fire* (2019), and *Ocean Souls* (2020), I can analyze how these films were constructed, if their CTA was successful, and, ultimately, whether they could be called an interpretive film.

To argue that any of these films could be an interpretation, I must first analyze them with Cable and Beck's key principles and break down the interpretive components within the film. Not all principles will apply to these films because they were not originally created to be an interpretive film but using the interpretive principles as a framework can reveal why the films' calls to action were effective or not. I will be focusing on three of the principles stated in Chapter 1 that are the core staples when creating an interpretation: principle one, two, and four.

The first principle is what we consider in film the through-line or the main point, question, or backbone of the story that will keep the audiences watching and engaged in the film until the end (Lovett). You cannot spark interest unless you connect with the audience and according to the director and writer Pippa Ehrlich of *My Octopus Teacher* (2020), the film's through-line was, "the transformative power of nature and the idea that as humans, we are a part of the natural world" (Thiyagarajan et al.). This through-line directly connects with the audience of *My Octopus Teacher* (2020) to the point that it has become a "viral sensation" according to *The Harvard Gazette* and eventually lead it to receiving the highest film award possible, the Oscar for Best Documentary (Walsh). *Ocean Souls* (2020) has a through-line targeted on one group of animals. It states that cetaceans and humans share the same soul, and when we protect cetaceans, we are in fact protecting our own future. According to director and writer Philip Hamilton, the story centers the through-line to answer the question, "What if cetaceans' intelligence and sense of family is not only linked to our origins, but also to our future?" (Hamilton). In *Ice on Fire* (2019), the through-line is focused directly on climate change, "technology and humans can save us from the destructive powers of climate change before it is too late" (Connors). Sounding the alarms of climate change has been one of director Leila

Conners passion, first taking a fear-based approach about climate change in her documentary *The 11th Hour* (2007) and now trying a more hopeful approach that make human's technology the saviors of climate change within her second film, *Ice on Fire* (2019) (Kumar).

The second principle talks more about the emotional connection every filmmaker must have with the audience throughout the film. As the writers of *My Octopus Teacher* (2020), Pippa Ehrlich and James Reed, and the main star Craig Foster, debated about how to hold the emotional connection with the audience, they decided to focus on three main categories: the relationship being formed with Craig, Craig's battle with depression and how nature was curing it to allow him a connection to his family, and a more subtle message about the need for conservation of kelp forests and nature in general (Thiyagarajan et al.). The audience is guided through the images shown by Craig's narration to establish his emotional connection with the octopus, which makes the audience more invested in what happens to this octopus. This emotional connection then folds into a deeper emotional connection with Craig himself, wanting him to succeed with his fight against depression and not fall back into that state once the octopus dies.

Within *Ocean Souls* (2020) the only point of the film is to gain an emotional connection to the audience. When talking about this film, producer Philip Hamilton states, "We are not activists or politically-motivated, we are totally independent and our strategy is based on science, knowledge, beauty, emotions and love. Our focus is to spread our love for the oceans and inform with the hope to trigger change" (Hamilton). The film itself has a poetry-based narration with scientific facts wrapped within. The visuals try to establish an emotional connection by having the bulk of the images be cetaceans looking directly at the audience, highlighting the animals

touching each other or vocalizing. This technique is called direct address or commonly known as breaking the fourth wall. It's usually used within fiction films for satire but overall, it is a way to bond you to the character in front of you and within this film emotionally bind you to the whales and dolphins on the screen (Jim). The interviews with the scientists focus on the emotions these cetaceans have and provide scientific evidence to support their claims about these emotions. Every section of the film focuses on proving that whales and dolphins have emotions and that their emotions are the same one's humans have because they are our ancestor from the ocean.

The film, *Ice on Fire* (2019) takes a different approach to connect with the audience emotionally. The first half of the film mainly focuses on the devastation and critical tipping points we are at regarding climate change. They use interviews with experts and scientists in the field to establish what they were saying could be trusted. The visuals are there to support the scientists' claims that climate change is real, and we are losing the battle. For example, the team travels to the Arctic where they light the methane gas that is being released due to climate change on fire. This supports the narration being stated by Leonardo DiCaprio and the scientists that are explaining the situation. The second half of the film then makes the scientists the heroes by highlighting every possible solution that humans have come up with to fix climate change.

Conners states:

I think that's the hope that everyone's searching for. If you want hope, just go talk to the people that are dealing with this problem, because they're actively taking this on every day. It gives you a sense of purpose and purchase on this. To me, that is very, very heartwarming and inspiring (Wernick).

Conners even tried to connect emotionally to the audience by flying the drones only at human eye level, instead of looking at the catastrophe from above. The idea was to see climate change at the human level instead of like an alien observing but not directly being affected (Wernick).

As mentioned previously the fourth principle is considered the call to action of the film. For *My Octopus Teacher* (2020), a theme that kept trying to be a major part of the film was conservation of the kelp forest according to the filmmakers. Blue chip films are higher budgeted films that reveal nature as wonderful, everlasting, and unspoiled with charismatic mega-fauna that, through the voice of an endearing narrator, live within dramatic storylines (Bousé). Though this is a low budget film, it possesses many blue chip aspects to make the viewers emotionally connect with the forest and the octopus. Since the conservation side of this film was decided as not the most important part from the filmmakers, their call to action for the conservation of the kelp forest isn't present until the title screen at the end. The last few seconds of the film state that, "Craig still dives every day, but he no longer swims alone. He co-founded the Sea Change Project a growing community of divers that is dedicated to the lifelong protection of the kelp forest." Then you see the group of divers swimming over the kelp forest with Craig as the last shot. This is a very clever and subtle call to action created by the film. It is not asking the audience directly like most climate change or environmental documentaries do to get involved. It states what Craig did and how he is no longer alone. But the implication that the protection of this forest is important and the push it gives you to get involved to have a similar experience as Craig is a huge driving force throughout the film. It's just not overt, which was their goal:

One of the toughest debates focused on how to convey the conservation aspects of the film and how much of an overt message to have. At the time of editing, there was a thriving octopus fishery operating in False Bay and within 10 days we witnessed 2 whales being dragged out of the water after becoming entangled in octopus trap lines and drowning. This was disturbing for us on both a personal and environmental level. For Craig and I, it seemed like it would have to find a place in the film, but Pippa was adamant that this story would overwhelm the more profound message that she was trying to explore around the transformative power of nature and the idea that as humans, we are part of the natural world. Pippa believed that if we told the story right, the conservation narrative would be

embedded inside of it without needing to be vocal about conventional, often polarizing environmental issues (Thiyagarajan et al.).

Pippa was right: this story's conservation pull is so subtle but strong by the time you get to the end of the film, you are dying to get involved.

One way that the public did get involved in their subtle call to action is by stopping the consumption of octopus. Thousands of people signed petitions and over 20,000 emails were received by the communications director for In Defense of Animals, Fleur Dawes, to stop the company Nueva Pescanova from building the first octopus farm (Landman). This sentiment spread throughout the world: that octopuses are sentient beings that feel pain and other emotions and should not be eaten. Over 300 scientific studies back these findings to fight against Nueva Pescanova as the company continues to move forward with their farming plans (Lai). The reason this call to action was so successful was that it asks the viewers to not do something. This tactic was first chosen by one of the most successful nature documentaries that also went viral, *Blackfish* (2013). Just like *My Octopus Teacher* (2020) audience picked up on the more subtle ways in protecting octopuses by not eating octopus, *Blackfish* (2013) asked the audiences more directly to not go to Sea World. Both are asking the audience to stop doing an expensive practice that can easily be avoided and caused these films to have highly successful call to action and high viewership throughout the world. Looking at all the principles included within the film and the success of the call to action, I would call this is an interpretive film.

When looking at *Ocean Souls* (2020) there is not a direct call to action within the film because the goal of the film wasn't to take a stance but more inspire the audience to act on their own (Hamilton). With the five parts of the film, it highlights different issues that drastically effects whales and dolphins, like noise pollution from boats, entanglements from fishing lines,

and hunting for pleasure. Even with statements of why these things are so devastating to the cetaceans, but there is no mention on how people can fix those issues. So, these calls to action become placed on the audience to find out on their own. After the film was released, the Hamilton was interviewed about what impact this film has generated. He said, “The social impact is clear, we get to see it every day. For every film we release we receive feedback from individuals on social media and those who contact us directly. We are, however, we also get to see the impact our work has on the larger institutions and corporations” (Weiner). Yet even when pressed about this issue Hamilton could not give a direct answer on how this specific film has created successful calls to action. The biggest assumption made by Hamilton is that because his company is a non-profit that funds all the scientists and NGOs they work with through their productions and has continually been successful at that, this film has made a massive impact (Weiner). Since this film does not have a clear call to action, tracing the actual impact after the release would be tangential at best. Therefore, though this film shows in the other principles to be the most in line with writing an interpretive film, it cannot be called an interpretation.

In the film *Ice on Fire* (2019) the calls to action are so abundant that it was hard to focus on one. The overall story was focusing on the carbon issue of climate change and since there is not one way to solve the CO₂ issue they show as many as they can within the film. Some of the examples of the solutions included: how the fishing industry can reduce their carbon emissions with kelp forests, the direct air capture machine removing carbon from the atmosphere, the product biochar that prevents dying forests, and the creation of an artificial leaf that can remove carbon from the atmosphere to make fuel. All these examples are specific to push the audience into a bigger call to action that allows them to put political pressure of the fossil fuel industry.

The experts in the film mention that if only 80% of all these solutions were done on a massive scale, climate change could be stopped. But here again the call to action is so broad it is hard to calculate the impact from the film because there isn't one thing asked of the audience to do other than pressuring politicians. After the film, Connors did interviews explaining the five main solutions to climate change and made the claim that her website from the film will direct you in being a part of a movement that has petitions for people to sign and send to their government officials (Menta). Unfortunately, two years later and the website is still not up and the fossil fuel industry increased by 2% in 2021 (Kaze). Now, ever since the war in Ukraine, the fossil fuel industry has skyrocketed with the Biden administration granting \$300 million dollars to build gas infrastructure on US soil (Milman). So again, though there are elements that could make this an interpretive film. At least there was a call to action within this film, but because it was not successful and too broad it could not be called an interpretation.

CHAPTER THREE: BUILDING AN INTERPRETATION

It is estimated that Yellowstone National Park alone received 4.86 million visitors last year to see its natural wonders (Warthin). Most of the visitors will run into park rangers or staff members to ask questions, go on a guided tour, or get directions to a specific park resource. These rangers and staff members are known as interpreters, or trained individuals in a specific communication style that aims to help visitors make their own personal and emotional connections to that organization's history, stories, or resources (*National Park Service Careers: Interpretation, education, and visitor services (U.S. National Park Service)*). This style of communication was introduced to me just a few years back but has been implemented as the mandatory communication style for the National Park Service since the 1950s (Mackintosh Chapter 4: Interpreting Interpretation). My MFA thesis film *The Dolphin Dilemma* originated from the desire to investigate the history of interpretation as a creditable communication style, define what interpretation principles mean, and implement this communication style into a climate change film to challenge the stereotypical, fear-based films seen today.

The Beck and Cable fifteen principles, as mentioned in Chapter 1, are known as the backbone to any interpretation today, but the point of this communication style is to create a certain outcome that benefits the organization that is using it. Therefore, the definition or rules to creating an interpretation will never be consistent because it is based on the needs of the organization using it. In order to create my film, I needed to find an organization that focuses on telling interpretive ocean-based climate change stories and that's when I discovered the National Network for Ocean and Climate Change Interpretation (NNOCCI).

The Dolphin Dilemma (2022) follows the discovery of an unknown skin lesion that is plaguing the critically endangered species, the Burrunan dolphins, within the Gippsland Lakes, Victoria, Australia. An investigation into the cause of these lesions, led by Dr. Pádraig Duignan, director of pathology at The Marine Mammal Center, Dr. Kate Robb, executive director of the Marine Mammal Foundation, and Dr. Nahiid Stephens lecturer in Veterinary Pathology at Murdoch University, ultimately lead to the conclusion that the lesions are only caused by climate change (Duignan, P.J., Stephens, N.S. & Robb, K.). The topic of climate change is notorious for being a difficult subject to cover and one that almost every environmentally based center avoided in their interpretations. In 2007, aquariums around the United States found the topic “risky, complicated, overwhelming, politically divisive, and depressing - not exactly the kind of conversation an interpreter could easily and quickly navigate in a family-oriented setting people visited out of curiosity and a desire for some fun” (*Reframing Climate Change*). This is the reason why NNOCCI was created. They hired the FrameWorks Institute, an organization focused on creating a “Strategic Frame Analysis or evidence-based approach to communication” to provide NNOCCI with “climate communications strategies that constructively engage people across the political spectrum and mobilized them to act” (*Reframing Climate Change*).

NNOCCI took this data and created a step-by-step workshop for interpreters from all around the world and trained them in the FrameWorks Institute “Strategic Framing” specifically to create interpretive climate change short films (McCurry and Ratner). The first question that needs to be addressed within the film for the viewers is, “Why does this matter to society?” (McCurry and Ratner). They wanted to understand how to structure a discussion about climate change into something that will align with tested values of the viewers, instead of assuming that

if someone is watching your climate change content, then they agree with you. What the FrameWorks Institute found is the majority of people surveyed responded positively when the ocean-based climate change film was framed to address two values, protection and responsible management. Protection is a value that means that something matters to the people because, “we have a duty to safeguard the wellbeing of people and places” (McCurry and Ratner). This value tested best at getting the viewers oriented in support of climate action. It highlights the need to shield people from harm and the importance of risk reduction, concern for the welfare of others, and habitat protection. Responsible management is a value that means something matters to people because, “taking common-sense steps today and managing the resources that we have responsibly is in the interests of future generations” (McCurry and Ratner). With these two values, NNOCCI suggests choosing and focusing on one within the film to make your climate change films successful.

The second question that must be answered according to NNOCCI is, “How Does it Work?” (McCurry and Ratner). Climate change communications purely focus on the impacts of climate change, like increase of fires, but not how climate change is happening. Focusing on the results of climate change without clearly defining climate change falls into the fallacy that everyone today knows what climate change means. The FrameWorks Institute found that most viewers not within the science community, “cannot make the connection between a changing climate and disruptions in long-standing weather patterns” (*Reframing Climate Change*). Without defining how climate affects weather, people see the fires, heavy rainfall, and droughts, but still conclude that “global warming” isn’t real (*Reframing Climate Change*). In creating ocean-based climate change films that are successful in communicating the science, the

connections must be defined clearly, and all the steps must be included. NNOCCI came up with four different mechanisms to add to your interpretation films and be the connecting factors. The metaphors include, “Heat-Trapping Blanket, Regular Versus Rampant CO₂, Climate’s Heart, and Osteoporosis of the Sea” (McCurry and Ratner). Not all the metaphors should be used because not all of them fit the specific topic you are filming.

The Heat-Trapping Blanket metaphor defines the mechanism of climate change. It states: “The atmosphere is like a blanket that surrounds the Earth. As we burn more fossil fuels the CO₂ emissions are added to the blanket, thickening the blanket. The thicker the blanket the more heat gets trapped underneath, leading to warming and disrupting the climate” (McCurry and Ratner). Using this as a visual metaphor, most people then understand what climate change means and how it works. The Climate’s Heart metaphor is used to define the role of the ocean in the climate system. It states:

As the heart of the climate’s circulatory system, the ocean maintains the Earth’s temperature. When we burn fossil fuels, our CO₂ emissions trap heat in the atmosphere. The heat puts stress on the ocean, disrupting its ability to keep the climate stable. Just like a heart must be monitored and cared for to ensure overall health and functioning, the same for our climate and the best care is preventative care (McCurry and Ratner).

Both metaphors were given as examples to make the ocean-based climate change film a successful interpretation.

The final question that must be answered within the film is “How Do We Improve the Situation?” (McCurry and Ratner). This question is the solution section of the film and how the audiences can help with the topic of the film. The “Strategic Framing Analysis” found that the solutions need to be about the collective or community actions that can be taken. Most climate change communications focus on the individual actions that can be taken within our daily lives,

but individuals also know that their actions will not fix the issues of climate change. Policy-level and systemic changes are what is truly required to solve climate change. They have found that a more effective communication that inspires the audience to act is by encouraging them to get involved with local community efforts (*Reframing Climate Change*). These need to be specific programs, initiatives, or approaches and avoid making it about the political issues around the audience (McCurry and Ratner).

My MFA Thesis film *The Dolphin Dilemma* aimed to incorporate this research to create an ocean-based climate change film that is successful in motivating action of the audience by joining their community fight against climate change. The majority of the film focuses on the story of how the researchers determined that climate change alone was causing these lesions to this endangered species of dolphin. I used the expository method bouncing between Dr. Duignan, Dr. Kate Robb and two PhD candidates, Amber Crittenden and Chantel Foord, that work for the Marine Mammal Foundation. Unfortunately, due to COVID, I was not able to interview Dr. Nahiid Stephens, the third author of the original paper. I did, however, still include her work by using images of the dolphins from her study and crediting her at the end of the film.

This topic of climate change is not only controversial worldwide, but when I arrived in Australia and talked with other companies like Sea All Dolphins Swims, a dolphin tour company based in Melbourne, VIC, Australia, and RedBoats Diving, a diving company that is petitioning for a dolphin tour tag based in Rye, VIC, Australia. I found out that even the existence of the Burrunan dolphins was a very contentious issue. Both companies claimed the Burrunan dolphins do not exist, and Dr. Kate Robb's research was created to prevent people like them from gaining access to the dolphins by stamping them with endangered species tag, which in turn puts

different regulations on how tours can interact with this species. Choosing the expository method became a mandatory requirement: “The expository mode emphasizes the impression of objectivity and a well-supported perspective. The professional commentator’s official tone, like the authoritative manner of news anchors and reporters, strives to build a sense of creditability from qualities such as detachment, neutrality, disinterestedness, or omniscience” (Nichols 123). With two highly contentious issues, there needed to be no doubt within the legitimacy of the story and using this interview-based method and B-roll that supplements their story it guides the audience into the “logic carried by the spoken word” (Nichols 122).

The expository method also supports my chosen NNOCCI method for explaining why does this matter to society: responsible management. This method is specifically based on common sense and logic-based practices to keep these dolphins as a resource for the future generations (McCurry and Ratner). According to the International Fund for Animal Welfare and the Melbourne, VIC, Australia-based company, Economists at Large & Associates, “more than 13 million people took whale watching tours last year in 119 countries worldwide, generating a whopping \$2.1 billion in total expenditures during 2008” (O'Connor et al.). Whale watching tours often combine with dolphin tours because there is a higher likelihood in finding dolphins than whales and it allows the tour company not to give refunds if a whale is not found. The lesions that are being presented on the Burrunan dolphins are now being found on all cetaceans around the world, which means that all tours will be effected (Duignan, P.J., Stephens, N.S. & Robb, K.). The amount of money created by these tours worldwide, shows that the film will be of interest to a bigger audience, a major goal for interpretations, and to keep this income within the community, there is a desperate need to manage the resource responsibly.

The desire for responsible management is supported throughout the film by establishing the dolphins as a lovable subject that the audience and the scientists care about. Close-ups of the dolphins underwater are used to connect to the emotional side of the audience to bind them to the dolphins. This embodies the idea that “a close-up is an emotional moment that draws in the audience and portrays a character’s innermost feelings. This makes the viewer feel like they’re a part of the action” (*Film 101: What is a close-up shot? how to creatively use a close-up camera angle to convey emotion* - 2022). Therefore, I chose to pack in as many dolphin images as possible with the close-ups of the dolphins at the key heart-throb moments, instead of seeing the talking heads for most of the film. This strategy to use close-up images of the affected dolphins after establishing the connection with the vibrant and live footage of the dolphins. The stark contrast between the two is meant to shock and disgust the audience, but not overpower them. It is there to lead the audience into an urgent need to find out how do we manage this resource more responsibly for the future and protect these animals from such a fate.

Typically, interpretation does not rely heavily on the scientific facts because that style falls too closely to education. I chose to counteract the amount of science within the film with metaphors and animations to make this more interpretative than science education. For example, I chose to keep in Dr. Duignan’s metaphor of how these lesions are equivalent to being caught in a house fire and getting third degree burns. I also kept in mind that successful ocean-based climate change films have all the connective information, like the explanation of climate change. So, I had Dr. Kate Robb mention the metaphor approved by NNOCCI of the heat-trapped blanket and used an animation to visualize the metaphor since she did not say the exact word for word description from NNOCCI.

According to Edward Tufte's *Envisioning Information*, "The principles of information design are universal – like mathematics – and are not tied to unique features of a particular language or culture" (Tufte 10). I interpret this to mean that if the information on the animation or infographic is well designed, anyone will be able to understand what is going on without any assistance. When creating the animations, I went back to different techniques from Tufte's book, like "Micro/Macro Readings, Layering and Separation, and Color and Information" (Tufte). This allowed me to add to the complexity of the film, giving more information on otherwise static shots, visually showing the data that the scientists say throughout, and creating an interpretive film using this infographic art. There are maps to give the viewer a frame of reference in where we are, starting from a world view to a getting more focused until the titles of the Gippsland Lakes are shown. There are titles over still images layering more information than what is being said, about where the dolphins came from to connect back to the maps they saw earlier. Towards the end of the film, titles of the locations of the dolphins combined with a macro view of the world showing all the affected dolphins found worldwide bring in the perspective that this is not just an issue for Australians but for everyone. There are different color palettes to distinguish the two organizations that are speaking at any one time as well as sticking within the blues and greens color palette to symbolize the ocean. There is layering of information in the animation that zooms into the dolphin's skin to explain how the cells bursts. Even the placement of where the titles are within the screen floating upon the water is a technique to break the flatland of the two-dimensional space within the screen and bringing back the three-dimensional element in order to pull the viewer into the story (Tufte 12-13). One way of creating interpretation is to have the information be, "attractive, brief, clear, and dynamic" (Youngentob and Hostetler).

Creating pauses within the interpretive film after big scientific ideas, cutting the film to the essentials of the story, and changing the visual mediums through animations and titling were used are the ways I chose to create the artistic elements within the interpretive film.

The film finally answers the question “How Do We Improve the Situation?” by establishing how the audience can become involved in a very specific way to help the Marine Mammal Foundation (McCurry and Ratner). It starts with Chantel Foord describing how the audience can become involved through citizen science sighting logs sent to the Marine Mammal Foundation to track the distribution patterns of the dolphins. Amber Crittenden then states why this is important: “The reason that we monitor these predominant behaviors and individual behaviors is so that we can better understand how the dolphins are interacting with our environment and then pass that information to enforcement bodies and conservation bodies, so that better decisions can be made about how we manage our marine environments.” This key ending is to help motivate the audience to get involved with those doing the on-ground action and it fits with NNOCCI’s goal of community-based solutions that point to a specific program the audience can get involved with. This interpretation is not about solving climate change but creating a sense of ownership over the subject of dolphin’s health within our waterways (Youngentob and Hostetler). Citizen science projects are focused on non-professional scientists being involved in the scientific process and they contribute to the data collection and data analysis (Land-Zandstra et al.). There are many motivating factors to become a part of these projects, but two main ones are the person has an intrinsic interest in the subject and the want to be a part of a community (Land-Zandstra et al.). That is why these two phrases are so important to be the ending of this interpretive film and is the main goal of the interpretation overall, get the

audience motivated and involved with the Marine Mammal Foundation and The Marine Mammal Center.

CONCLUSION

Integrating interpretation into different activist documentaries can help bring real change to the minds of an audience when viewing politically divisive subjects. Documentaries are competing with a \$42.5 billion dollar industry, where on average a major studio can spend around \$65 million dollars per film (Mueller). Documentaries typically do not have anywhere near this budget and challenge the audience to face things that the movie industry was created to distract from: real life. They take on the hardest issues we face in the world, sometimes with specific solutions to solve those issues, but with no way of knowing whether their film is successfully making an impact. Currently, there has been a huge movement to create documentaries with social impact campaigns in order to have actual data on how their film is impacting society, for example in the new Netflix documentary film: *Youth v Gov (2020)*. This shows the industry is already searching for answers on how to connect with the audience on a deeper level for their calls to action to be successful. To me this is a step towards the interpretation communication style.

Through my first attempt at creating an interpretive film, I gained a newfound appreciation on how to create content with intention and balance the emotional connection with the science. This was the most challenging part to form a film based off NNOCCI's guidelines as well as keeping true to myself as a filmmaker. My goal was to find a happy medium of the science, the dolphins, the scientists, and the audience to make it an experience that lasts with them and have a measurable change with the call to action to get involved with logging dolphin sighting for the Marine Mammal Foundation.

Interpretation's main goal is to provoke emotion and I hope that with every part of *The Dolphin Dilemma* emotion was felt. Through the joy of watching the dolphins fly, to the heartache of seeing the disease take hold, to curiosity of how these scientists manage to find the issue, and the hope that there are solutions you can do to save all the cetaceans around the world.

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