Climate Action at the University of Maine: A Documentary Short Film

Santiago Tijerina

Follow this and additional works at: https://digitalcommons.library.umaine.edu/honors

Part of the Film Production Commons, Fine Arts Commons, Interdisciplinary Arts and Media Commons, Other Film and Media Studies Commons, Screenwriting Commons, and the Visual Studies Commons

This Honors Thesis is brought to you for free and open access by DigitalCommons@UMaine. It has been accepted for inclusion in Honors College by an authorized administrator of DigitalCommons@UMaine. For more information, please contact um.library.technical.services@maine.edu.
CLIMATE ACTION AT THE UNIVERSITY OF MAINE:

A DOCUMENTARY SHORT FILM

by

Santiago Tijerina

A Thesis Submitted in Partial Fulfillment
of the Requirements for a Degree with Honors
(International Affairs)

The Honors College
University of Maine
May 2023

Advisory Committee:
Dr. Michael Grillo, Historia Ars Magister, Department of Art, Advisor
Adam Küykendall, Photographer/Videographer, Department of Visual Media
Dr. Melissa Ladenheim, Associate Dean, Honors College
Dr. Michael Socolow, Associate Professor, Department of Comm. & Journalism
Copyright 2023 Tijerina
All Rights Reserved
ABSTRACT

Fossil fuel divestment is central to the discourse surrounding climate change, nevertheless, it is a movement driven by student activists and it is a sign of institutional change at a global scale. *Climate Action at the University of Maine*, written and directed by Santiago Tijerina and created in collaboration with the University of Maine and the Center for Undergraduate Research (CUGR), is a documentary short film driven by the research objective of understanding the rise of student activism at the University of Maine and the recent decision of the Board of Trustees to divest from fossil fuels.

The subject matter of the documentary short film, *Climate Action at the University of Maine*, seeks to explore human dimensions of climate change and to advocate for important causes related to climate change in Maine. *Climate Action at the University of Maine* focuses on fossil fuel divestment as a climate action-based solution; thus, it promotes fossil fuel divestment as a broader movement.

As a media advocacy project that will be used as a catalyst for change, this documentary short film seeks to amplify the mission of “University of Maine Climate Action” (UMCA), formerly known as, “Divest UMS.” This documentary short film engages with ethical visual storytelling and qualitative research methods while also adhering to the traditional framework of documentary filmmaking (i.e., pre-production, production, post-production) as it features interviews with student activists, local community leaders and political figures, as well as the voice of a Distinguished Maine Professor.
DEDICATION

Nicolas Johnson

June 3, 2003 – February 10, 2023
ACKNOWLEDGEMENTS

Created in collaboration with the University of Maine, the Center for Undergraduate Research (CUGR), and the Honors College Charlie Slavin Research Fund.

## TABLE OF CONTENTS

| CHAPTER ONE | 1 |
| INTRODUCTION | 1 |
| Creative Thesis | 1 |
| Artist Intent | 3 |
| CHAPTER TWO | 5 |
| LITERATURE REVIEW | 5 |
| Subject Matter | 5 |
| Documentary Feature Films | 19 |
| CHAPTER THREE | 44 |
| METHODOLOGY | 44 |
| Pre-Production | 44 |
| Production | 49 |
| Post-Production | 52 |
| CHAPTER FOUR | 69 |
| CRITICAL ANALYSIS | 69 |
| CHAPTER FIVE | 77 |
| CONCLUSION | 77 |
| BIBLIOGRAPHY | 83 |
| APPENDICES | 86 |
| APPENDIX A: LITERATURE REVIEW FIGURES | 87 |
| APPENDIX B: INTERVIEW QUESTIONS | 89 |
| APPENDIX C: STORYBOARD | 92 |
| APPENDIX D: FUNDING | 96 |
| AUTHOR’S BIOGRAPHY | 113 |
CHAPTER ONE

INTRODUCTION

This introduction includes a discussion of how I came to decide on my creative thesis. This introduction also includes my artist intent, i.e., what I am trying to accomplish through both the process and product of this creative thesis.

Creative Thesis

I began this culminating experience by initiating a traditional thesis under the umbrella of my academic field of study, international political economy. After learning about the possibility of pursuing a creative thesis and after many conversations with my mentors, I decided to transition away from a traditional thesis and explore my passion for filmmaking instead. At first, I was eager to write an original screenplay, but after learning more about the requirements for a screenplay and the careers of screenwriters, I was disillusioned once again. I decided to take a “leap of faith,” and to write and direct a documentary short film in hopes of using it to apply to the Salt Institute for Documentary Studies at the Maine College of Art & Design, and in hopes of seeking to build a marketable portfolio of professional work that would effectively expand my network and enable me to advance my career.

Determining the subject matter involved a great deal of research. The subject matter of this documentary short film is relative to my academic field of study, international political economy. I first learned about climate action through fossil fuel divestment in a course offered by the School of Economics at the University of Maine titled: Sustainability Science, Policy, and Action. In this course, I spearheaded a
semester-long research collaborative to investigate fossil fuel free funds as part of an
effort to divest assets within the University of Maine’s endowment fund, promote climate
justice action, and spark discourse around climate change.

I viewed the honors thesis not only as the culmination of my undergraduate years
and a subject matter that was relative to my academic field of study, international
political economy, but also as a steppingstone towards what I am determined to pursue
after my undergraduate years. More importantly, it was an opportunity to pursue a
meaningful and rigorous learning experience within the Honors College in a collaborative
environment of experts in journalism, film production, and visual storytelling.
Additionally, it was an opportunity to engage in professional fieldwork, to create my best
work, and to finally dedicate myself completely to the art of creating documentaries and
visual storytelling.

While I do appreciate my academic field of study, international political
economy, my passion lies elsewhere. My relationship with film production, media
advocacy, and digital media marketing, as well as with photography and videography has
been very involved these past few years. As a photographer and videographer for the
Division of Marketing & Communications at the University of Maine, I developed an
advanced understanding of cutting-edge camera operation, lighting technique, audio
production, and software related to photo and video editing. On the set of two
productions, I demonstrated exceptional adaptability and leadership skills in a fast-paced
environment, while also demonstrating a willingness to learn from others. Most
importantly, in directing a documentary short film for my honors thesis on climate action
at the University of Maine, I have discovered how visual storytelling could be used as a catalyst for change.

**Artist Intent**

As a social documentary filmmaker, I seek to explore human dimensions and experiences, to engage with visual anthropology, to amplify the mission of organizations and individuals dedicated to positive social and environmental change, and to advocate for important causes at both a local and global scale. I am passionate about civic engagement, leadership, and using visual storytelling as a catalyst for change. My life experiences and worldview have shaped my voice in visual storytelling, providing me with the motivation to capture powerful images, and tell stories that are deeply personal and deeply compelling to audiences.

I have been motivated by the rigorous learning experience and collaborative environment that the Honors College has cultivated. From the start of this honors thesis endeavor, I have demonstrated an eagerness to engage in professional fieldwork, to create my best work, and to dedicate myself to the art of creating documentaries. Through the process of this honors thesis, I have sought to develop the fundamental knowledge, skill set, and expertise of a documentarian and visual storyteller. With that being said, I have sought to acquire an advanced understanding of cutting-edge camera operation, lighting techniques, audio production, and industry-standard audio and video editing software. The process of this honors thesis has also required me to engage with qualitative research methods and ethical visual storytelling.

In terms of creating an effective narrative, I have sought to gain a deeper understanding of the subject matter and the research questions that drive this story. For
instance: “How is fossil fuel divestment related to climate change?” “Why are student activists at the forefront of the fossil fuel divestment movement?” “What does fossil fuel divestment mean for the University of Maine community, for the entire world at large, and for future generations?” These are the main research questions being asked of interviewees throughout the process of this honors thesis, to bring the subject matter to life.

Finally, through the product of this honors thesis, I am seeking to build a marketable portfolio of professional work that will expand my network and enable me to advance my career. More importantly, this is a product of media advocacy in which I am exploring human dimensions of climate change, amplifying the mission of organizations and individuals dedicated to positive social and environmental change, and advocating for important causes related to climate change here in Maine.
CHAPTER TWO

LITERATURE REVIEW

This literature review includes a discussion of the subject matter for this documentary short film and the literature that has influenced and informed my understanding of the subject matter. It also includes a discussion of the documentary feature films that have influenced and informed my understanding of documentary filmmaking.

Subject Matter

Fossil fuel divestment has been a topic of discussion in many of my courses, most notably, International Political Economy, International Environmental Economics and Policy, Sustainable Development Principles, and of course both Macroeconomics and Microeconomics. Officially, my field of study in International Affairs has a Concentration in Economics. The time I have devoted to developing my understanding of macroeconomic trends, the various implications of the international political economy, and the pressing issues of today have undoubtedly shaped the way I view the world. With all, I have been exposed to substantial literature on the topic that has informed my thinking to date.

Fossil fuels are defined as non-renewable resources, more specifically, oil, gas, and coal. Fossil fuels have produced considerable amounts of energy, have generated extreme economic prosperity, and they have dominated the energy sector of the global economy for numerous years. However, fossil fuels emit pollution and produce harmful chemicals, most notably, carbon dioxide. Burning fossil fuels has been a direct cause of
the climate crisis—an anthropogenic phenomenon that requires global solutions.¹

Because of the negative impacts of fossil fuels on the environment, there has been a global effort to pursue a renewable energy transition agenda that effectively abandons fossil fuels in the long term. Fossil fuel divestment entails social, political, and economic pressure. All sorts of groups have been born from this sustainability challenge, including People & Planet, Fossil Free Australian National University (ANU), 350.org, The Guardian, Fossil Free Stanford, Divest Harvard, and Fossil Free MIT (FFMIT). All these groups are united by similar core values and overarching goals, ultimately, they are all driven by the ethical motive to achieve full divestment. As more groups assemble to exert social, political, and economic pressure, there will be a greater incentive to abandon fossil fuels that are largely accepted and understood.²

Fossil fuel divestment is a form of climate action, as it aims to address the impacts of climate change by reducing the financial support for fossil fuel companies, which are major contributors to greenhouse gas emissions and climate change. Divesting from fossil fuels sends a message that the university or organization is committed to addressing the issue of climate change and aligning their investments with that goal. While fossil fuel divestment is one of the many strategies that can be used to address climate change, it is not the only one. Climate action also includes reducing greenhouse gas emissions, increasing renewable energy use, and adapting to the effects of climate change. For example, a university can divest from fossil fuels, but at the same time, implement energy

efficiency measures, install solar panels on its buildings, and promote sustainable transportation options for students and faculty. Fossil fuel divestment is an important step in addressing climate change, as it can help reduce the financial support for fossil fuel companies and encourage the transition to cleaner energy sources. However, it should be considered as one of the many strategies needed to address climate change, and it should be complemented by other actions that can reduce greenhouse gas emissions and promote sustainable practices.³

Many legitimate institutions have proven that fossil fuel divestment is a feasible solution to tackle climate change. For instance, the country of Ireland and even the Government Pension Fund of Norway (the largest sovereign wealth fund in the world) has both committed to divestment. In addition, over 40 universities in the United States have been involved in this effort, with numbers increasing annually.⁴

The philosophy behind fossil fuel divestment is quite simple: to support the just transition from fossil fuels to a clean energy-based economy. This economic approach is significant, not only because it ensures an ethical future, but it also ensures new job opportunities in the clean energy-based economy. In addition, communities that have been vulnerable to the climate crisis will experience economic benefits.⁵ Divestment is a global initiative with serious motives and progress. This sustainability challenge is extremely relevant and significant because fossil fuels are one of the leading causes of

³ William MacAskill, Does Divestment Work? The New Yorker (2015), www.newyorker.com
⁴ What We Know About Harvard’s Investments in and Entanglements with the Fossil Fuel Industry, Divest Harvard (2019), www.divestharvard.com
⁵ Responsible Investment: Government Pension Fund Global 2021, Norges Bank Investment Management (2021), www.nbim.no
this climate crisis. Ultimately, a crucial part of a transition to a more just society is fossil fuel divestment and investment in environmentally sustainable and ethical businesses.

The divestment movement is a global phenomenon with roots beginning in the 20th Century. Fossil fuel divestment is not a recent phenomenon, having begun in the United States as a student-led organization pressuring Swarthmore College to divest from fossil fuels, but largely inspired by the previous divestment movement targeting Apartheid within South Africa during the 1970s—80s. At that moment in time, South Africa was ruled by an all-white apartheid government with one aim, and that was to uphold a system of institutionalized state-sponsored racism in South Africa. As history has it, the divestment movement was extremely successful at exerting international pressure and it frequently made headlines. According to Investopedia, “By the end of the 1980s, 90 cities, 22 counties and 26 states [in the United States] had taken some form of economic stance against the South African Government.”\textsuperscript{6}

With the divestment movement in the US begun as a student-led initiative, today, over 150 universities worldwide have taken part in the divestment movement. While the divestment movement did result in the withdrawal of billions of dollars from the South African economy, white-only rule in South Africa was already collapsing due to constant internal strife. What is not debated is the effect it had on the public, as opinions of the South African Apartheid government soured quickly due to constant bad press.\textsuperscript{7}

The students at Swarthmore College addressing Climate Change attempted to emulate the previous South African divestment movement. Swarthmore College activists

\textsuperscript{7} Ibid.
met with non-profit organizations to formulate a plan for divestment and then enacted upon it. The campaign at Swarthmore College was mostly a public relations campaign, featuring protests, sit-ins, and fossil-fuel awareness campaigns. Swarthmore College has refused to divest and remains steadfast in its commitment to fossil fuels.8 Even so, the divestment movement that was popularized by Swarthmore College, quickly blossomed into a worldwide campaign.9

As stated throughout the University of Maine System: Fossil Fuel Discussion, “there has been a significant push to reduce exposure to companies that are contributing to climate change.”10 As noted in the Go Fossil Free Divestment campaign led by Bill McKibben, the fossil fuel divestment movement has been a student initiative, for the most part. The original statement behind this campaign was to ask, “College and University Presidents and Boards (as well as Religious and Pension funds) to immediately freeze any new investment in fossil fuel companies and divest from direct ownership and any commingled funds that include fossil-fuel public equities and corporate bonds within 5 years.”11

Billions of dollars have so far been divested from fossil fuel companies around the world, and pressure is currently being exerted on hundreds of other funds and organizations, such as the University of Maine. Responsible investing has evolved significantly over the years. Initially, responsible investing started with negative

8 SwatDivest, SwatDivest (2022), www.swatdivest.swarthmore.edu
11 Ibid.
screening and selective activism. Now, it is more focused on Environmental, Social, and Governmental (ESG) ratings. Divest UMS has placed responsible investing at the forefront of sustainability-related conversations. The University of Maine’s Board of Trustees has been heavily pressured by Divest UMS to address this sustainability challenge and pursue a divestment agenda.

To further elaborate, the reason that there is a relatively small and manageable exposure to fossil fuels within the overall portfolio is simply because of the University of Maine System’s reliance upon mutual funds, commingled funds, and limited partnerships for their investments. This balance has nonetheless “created limited options to reduce fossil fuel exposure through negative screens.” Unless extensive and significant wholesale changes occur, the University of Maine System’s investment portfolio will only continue to divest from fossil fuels at an extremely slow rate. Ideally, there would be a dramatic alteration of “the risk/return profile of the portfolio to invest solely in global equities.”

The New England Pension Consultants (NEPC) LLC is an investment consulting firm that completed an estimate of the allocation of fossil fuel exposed funds within the University of Maine System’s investment portfolio—Managed Investment Pool (MIP) (~6.5%), Operating Fund (~3.5%), and Pension Fund (~5.3%). Since the exposure to the fossil fuel industry within the University of Maine’s investment portfolio was more than

---

14 Ibid.
15 Ibid.
expected, these findings were more than enough to prove that Divest UMS had a rightful cause to fight for.\textsuperscript{16}

The University of Maine System has three investment portfolios consisting of the Managed Investment Pool (MIP), the Operating Fund, and the Pension Fund, which are financially managed by NEPC. The MIP has an estimated money exposure of $6 million, the pension fund has an estimated money exposure of $426,600, and the Operating Fund has an estimated money exposure of $4 million totaling about $11 million invested into the divestment of fossil fuel companies. Using Morgan Stanley Capital International to evaluate ESG ratings of the MIP, Operating Fund, and Pension Funds equity and fixed income holdings since 2016, we notice that exposure to fossil fuels is falling for the MIP and Pension Fund, but that of the Operating Fund has remained relatively constant.\textsuperscript{17}

The Managed Investment Pool (MIP) consists of endowments of the University of Maine System and associated endowments, the University of Maine School of Law Foundation, and the University of Maine System Other Post-Employment Benefits Trust. The MIP is intended to maximize total return consistent with prudent investment management, with the total return being compared regularly to the Allocation Index and the Policy Index and assets producing at minimum a nominal long-term rate of return of 7.25\%.\textsuperscript{18}

The Operating Fund is stratified into a minimum of three separate pools—Liquidity Pool (day-to-day obligations, average quality at least A-1), Income Pool (sufficient income to meet budgetary goals and provide additional diversification,

\textsuperscript{16} Appendix A: Literature Review Figures
\textsuperscript{17} Ibid.
\textsuperscript{18} Ibid.
average quality at least A-), and Total Return Pool (diversification and growth, flow of financial support to UMS programs). It should have at minimum a nominal long-term rate of return of 4.00%. The Pension Fund should at minimum produce a nominal long-term rate of return of 6.25%. In January 2015, the Board of Trustees approved a negative screen on coal investments and divested from coal in the three portfolios. This removal meant that the University of Maine System had to undergo a process of identifying companies in their investment portfolio that were exposed to the fossil fuel industry in the form of coal companies. The MIP is valued at $309 million; the Operating Fund is valued at $279 million, and the Pension Fund is valued at $23 million—The University of Maine System has approximately $11 million invested in fossil fuels, with the MIP being the most exposed, followed by the Pension Fund and the Operating Fund. Exposure of all involved managers ranges from 0.0% to 6.2%, with IR&M being a good candidate for initial divestment, and SsgA S&P 500 and DFA being prime candidates for initial replacement. Following this, accounts in United States bonds and in international stocks should be analyzed for replacement.

The University of Maine System’s investment policy took steps to prioritize environmental stewardship by taking ESG factors into consideration when managing investments in the MIP. The MIP funds had a value of $304 million as of June 2019 and includes the system’s endowment funds as well as funds held for foundations tied to the

19 Ibid.
22 Ibid.
University of Maine at Fort Kent, University of Maine School of Law, and the University of Southern Maine. The University of Maine also now requires that all consultants agree to the Principles for Responsible Investment (PRI) policies, requiring they take ESG factors into consideration when advising on asset allocation and manager selection. In 2016, UMS adopted an ESG policy, specifically stating “the Committee will consider ESG principles and incorporate ESG analysis into investment decisions such as asset allocation and manager selection.”

However, Divest UMS has no internal process information between the University of Maine System and the NEPC. The University of Maine System uses Morgan Stanley Capital International (MSCI) to annually evaluate the ESG rating of their equity and fixed income holdings. The University of Maine System currently has invested in fossil fuels companies SsgA S&P 500, DFA, Morgan Stanley, Globeflex Aberdeen, Mondrian, Walter Scott, Commonfund, Blackrock SIO, Bain Capital, GMO, Newton, Lighthouse, Landmark, Principal, IR&M, Loomis Sayles Bank Loans, PIMCO AA, Vanguard Total Bond Index, and Vanguard Total World Stock.

The divestment movement in the University of Maine System began in earnest during the summer of 2012 with the organization 350 making the first organized push for divestment on a large scale. Students at the University of Maine followed soon after founding Divest UMS in December 2012. While Divest UMS had been successful in ridding coal from the systems portfolio in late 2014 and early 2015 but since coal was in

---

23 Ibid.
24 Ibid.
the process of already being phased out, the divestment was not as impactful.\textsuperscript{26} The movement gained momentum during 2012, but only recently have many of the efforts come to fruition after nearly a decade of work. Divestment from fossil fuels has also become increasingly popular due to the declining profitability of fossil fuels as the public has become increasingly aware of how fossil fuels stand out as one of the greatest contributors to human-caused climate change and global warming.\textsuperscript{27}

Divest UMS three main requests for the University of Maine’s Board of Trustees (1) Divest UMS proposed that a policy be set in place to require new investments to pass a negative screening, based on the Carbon Underground 200\textsuperscript{TM}. This would effectively make sure that the University of Maine’s Board of Trustees would not be able to reinvest into fossil fuel exposed funds. (2) Divest UMS proposed that the University of Maine fully divest from fossil fuel exposed funds. (3) Divest UMS proposed that the University of Maine’s Board of Trustees commit to working alongside the International Endowments Network to develop and implement a tentative five-year plan to phase out fossil fuel exposed funds.\textsuperscript{28}

Of the hundreds of universities and colleges that have fully or at least partially divested from fossil fuels, the largest, the entire University of California System, decided in May of 2020 that it was going to divest its entire $126 billion portfolio of fossil fuels. Their logic for doing so, according to the Chairman of the University of California System Board of Regents, was that “As long-term investors, we believe the university

\begin{flushleft}
\textsuperscript{26} Susan Sharon, \textit{University of Maine System Votes to Divest from Coal}, Maine Public (2015), www.mainepublic.org
\textsuperscript{27} Samantha Harrington, \textit{Causes of global warming: How scientists know that humans are responsible}, Yale Climate Connections (2020), www.yaleclimateconnections.org
\textsuperscript{28} Meaghan Bellavance, \textit{Divest UMS features Divest Fest}, Maine Campus (2022), www.mainecampus.com
\end{flushleft}
and its stakeholders are much better served by investing in promising opportunities in the alternative energy field.”  

However, the university did not make this choice solely because they believed that there is more money to be made in renewables, for they also noted that fossil fuels now present “unacceptable financial risk,” due to “geopolitical tensions and likely, a bumpy and slow global financial recovery in a post-pandemic world.” The movement at the University of California System also began in 2012, the same year the movement started at the University of Maine System. Divestment is not only a university phenomenon, with most of the dollars which have been divested coming from religious institutions and state pension funds. For example, in 2020 the State of New York chose to divest fossil fuels from its $225 billion retirement fund. There are approximately 60 current educational institutions in the United States that have at least partially divested in fossil fuels, ranging from small liberal arts colleges to state institutions to Ivy League schools, including Brown, Cornell, John Hopkins, Rutgers, Stanford, Syracuse, USC, College of the Atlantic, and Yale.

While divestment has the potential to impact the fossil fuel industry financially in the long term, as in the case of the University of California System, it is more concerned now with creating a stigma around the industry. Given our market economy, if a university does sell their shares, other investors not interested in ethics will buy them, leaving the fossil fuel companies unaffected. In this case boycotts are more effective, marked by divestments by prominent organizations such as universities, cities, and banks.

30 Ibid.
which has a direct impact on the social standing and influence of these companies.\textsuperscript{31} Nevertheless, the NEPC recommends institutions considering divestment assess the logistics and analyze current portfolios before divesting.\textsuperscript{32}

Market data suggests that moving towards renewable resource investments instead of backing fossil fuel companies will generate greater returns as it reduces the effects of climate change. With the increasing volatility of the gas and oil market, investors have shifted towards solar energy resources since its prices have dropped by 75% in the past 5 years. Currently, renewable energy, such as solar energy, is the second-largest generator of electricity in the world and by 2030 it is estimated that renewable energy will become more utilized than coal. As a result, Chevron announced they will decrease their 2016 coal budget by 25%, causing a 10% reduction in the workers needed for efficient production. This shift indicates that Chevron was able to reduce coals’ negative effect on the environment while also decreasing the cost of employees and generating a greater level of efficiency. In addition to fossil fuel free funds, coal-free funds are also a strong alternative, especially when considering the volatility of the coal market. The ACWI excluding coal has historically outperformed the ACWI index as seen by total monetary returns of 8.1% as compared to returns of 7.8%. Furthermore, the total risk of investment is 0.2% lower than if you were to invest in indices that still used fossil fuels. In 2015, an analysis of the California public pension fund indicated that beneficiaries lost nearly $5 billion due to bad fossil fuel investments. If they were invested in indices excluding coal and fossil fuels as discussed previously, estimates

\textsuperscript{31} William MacAskill, \textit{Does Divestment Work?} The New Yorker (2015), www.newyorker.com
show that the pension fund would have done $23 billion better. This evidence indicates that return, risk, and performance are not negatively impacted by these divestment strategies.\(^{33}\)

The Clean200 List essentially ranks the largest publicly listed companies by their total clean energy revenues—on average, 39% of revenues earned by Clean200 companies are classified as clean, with most other revenues classified as neutral, compared to just 8% clean revenue for their peers. The list utilizes negative screens, excluding all oil and gas companies and utilities that generate less than 50% of their power from green sources, the top 100 coal companies measured by reserves, the top 100 oil and gas companies as measured by reserves, as well as all fossil fuel companies, majority fossil-fired utilities, pipeline and oil field services companies, and other fossil fuel-related companies screened on As You Sow’s Fossil Free Funds. It also utilizes additional negative screens to target critical factors for socially responsible investors, such as involvement in weapons, private prisons, thermal coal, or having a record of systemically obstructing climate policy. The Clean200 List has consistently and handily outperformed both the MSCI ACWI broad market benchmark and MSCI ACWI Energy benchmark for fossil fuel companies.\(^{34}\)

These figures provide a compelling example of how to not just screen for the Carbon Underground 200, but further incorporate ESG factors into investment decisions, an objective that the University of Maine System has already agreed is an integral part of its investment strategy, while still maintaining profitable and sustainable investment


\(^{34}\) Clean200 List, As You Sow (2023), www.asyousow.org
portfolios within the parameters of the current investing mandates for the University of Maine System. A generally successful framework for divestment specific to colleges and universities was identified, which is to first divest from the highest-polluting and most irresponsible operations, and then launch a process of learning where to reinvest in the cleaner opportunities of the future. This study would involve not just divesting fossil-fuel intensive assets, but also would open discourse within the university system on fossil fuel exposure auditing and manager engagement, regulator, advisor, and analyst accountability, and diversifying investments to favor companies that will prosper in a low-carbon economy, all in promoting a clean energy transition. This sort of nuanced approach would give the University of Maine System more flexibility and adaptability with respect to their management objectives while also satisfactorily addressing the divestment movement, for while divestment is important, it is not a step that should be taken in isolation as some sort of final solution.\textsuperscript{35}

The overarching purpose of Divest UMS is to achieve fossil fuel divestment of the University of Maine’s investment assets across the Managed Investment Pool (MIP), the Operating Fund, and the Pension Fund. Recognizing divestment as a tactic for social change that targets the capital side of unethical industries, Divest UMS served as a collective effort driven by students to democratize the University of Maine’s finances and administration, promote climate justice action on the University of Maine campus, and finally, spark discourse around climate change and challenge the status quo. Divest UMS acknowledges that the University of Maine profits from its current investments, and so

understands that proposing requests to reevaluate and divest assets within the Managed Investment Pool (MIP), the Operating Fund, and the Pension Fund will prove to be a difficult transition and a tedious bureaucratic effort.\textsuperscript{36}

The purpose of Divest UMS shall be to encourage and work with the University of Maine’s Board of Trustees to divest its assets in the Managed Investment Pool (MIP), the Operating Fund, and the Pension Fund from the fossil fuel industry, and to raise public awareness and support of fossil fuel divestment as a broader movement. Upon achievement of sufficient fossil fuel divestment (as the group sees fit), the object of our group is subject to change such that it aligns with our core values of climate justice and activism. Divest UMS has gained strong rapport with the student body, for it has proven again and again to be an effective approach to raising awareness of climate justice—one of the main sources of concern for future generations.\textsuperscript{37}

\textbf{Documentary Feature Films}

In addition to the discussion of the subject matter for this documentary short film and the literature that has influenced and informed my understanding of the subject matter, this literature review also includes an exploration of the documentary feature films that have influenced and informed my understanding of documentary filmmaking.

\textbf{The Dark End of the Street}

\textsuperscript{36} Sebastian Bennage, \textit{University of Maine commits to divest $14 million in fossil fuels}, News Center Maine (2022), www.newscentermaine.com

\textsuperscript{37} Robbie Feinberg, \textit{University of Maine students hold a climate strike to call on the university system to divest from fossil fuels}, Maine Public (2022), www.mainepublic.org
The Dark End of the Street is a powerful and thought-provoking documentary feature film directed by Steven Okazaki that explores the lives and experiences of a group of people who are struggling with addiction and homelessness in the streets of San Francisco. The film effectively uses a combination of interviews, archival footage, and observational footage to tell a story that is both insightful and moving. The film is well-edited, with a strong narrative structure that keeps the audience engaged throughout.

In terms of its impact on my understanding of documentary filmmaking, The Dark End of the Street has reinforced the importance of empathy and respect in the filmmaking process. The film treats its subjects with dignity and care, telling their stories honestly and unvarnished. The film also highlights the importance of using multiple techniques and elements to tell a story, as well as the value of presenting multiple perspectives to give a complete picture of a situation. For instance, the film uses a unique technique known as personal reportage, in which the filmmakers are completely immersed in the lives of their subjects. Overall, The Dark End of the Street is a well-crafted and impactful film that provides a valuable lesson for all documentary filmmakers.

Steven Okazaki is known for his humane and compassionate approach to documentary filmmaking. His films often focus on marginalized communities and individuals, and he strives to tell their stories with empathy and respect. Okazaki’s films often use a combination of interviews, archival footage, and observational footage to create a comprehensive and multi-faceted picture of his subjects. He is also known for his strong editing skills, which help to create a compelling narrative structure that keeps the audience engaged and invested in the story. Additionally, Okazaki often highlights the
struggles and triumphs of his subjects in an honest and unvarnished manner, avoiding sensationalism or exploitation in his depictions of their lives.

In *The Dark End of the Street*, Steven Okazaki employs cinematography that adds depth and emotional impact to the film’s subject matter by effectively conveying the harsh realities of homelessness and addiction while also capturing moments of hope and humanity. The film’s cinematography style is characterized by its use of close-ups, intimate shots, and observational footage that bring the audience into the lives and experiences of the subjects.

Some examples of the power of cinematography in *The Dark End of the Street* include intimate close-ups of the subjects’ faces, which help to convey the emotions and experiences of the individuals struggling with addiction and homelessness. Observational shots of the subjects in their daily lives provide a raw and direct look at their experiences. Using natural light adds a sense of realism and authenticity to the film. Camera movements, such as tracking shots, follow the subjects and create a sense of intimacy and connection with the audience. Overall, the cinematography in *The Dark End of the Street* is a key component in articulating the film’s message and bringing the audience into the lives of the subjects. It is a testament to Okazaki’s ability to use visual elements to enhance the emotional impact of the film.

*Icarus*

*Icarus* is a thought-provoking and eye-opening documentary film that explores the world of doping in sports. Directed by Bryan Fogel, the film is a masterclass in investigative journalism and documentary filmmaking. The film has received widespread
critical acclaim and has been widely praised for its powerful storytelling and its ability to shed light on important social and political issues.

At its core, *Icarus* is a film about the pursuit of greatness in sports and the lengths to which people will go to achieve it. The film follows Bryan Fogel, an amateur cyclist and director, as he embarks on a journey to uncover the truth about doping in sports. As he begins his investigation, he meets Grigory Rodchenkov, the former head of Russia’s anti-doping laboratory. Rodchenkov becomes a central figure in the film, providing key insights into the world of doping and the systemic corruption that exists in sports.

One of the most impressive aspects of *Icarus* is its compelling narrative and powerful storytelling. The film raises important questions about the ethics of doping in sports and the extent to which athletes will go to achieve success. Through its investigation, the film uncovers a complex web of corruption that extends from the athletes themselves to the organizations and governing bodies that are supposed to be policing the sport. This thoroughness of coverage makes *Icarus* an important film for anyone interested in the intersection of sports, politics, and ethics.

Furthermore, *Icarus* has informed my understanding of documentary filmmaking by demonstrating the power of investigative journalism, in showing the importance of telling stories that shed light on important social and political issues. By uncovering the truth about doping in sports, *Icarus* provides a powerful commentary on the state of the world and the need for transparency and accountability in all aspects of society.

The cinematography in the film *Icarus* is a crucial aspect of the film’s storytelling, contributing greatly to the film’s impact through its cinematography that combines different styles, including hidden camera shots, personal interviews, and
archival footage, which all work together to create a visually stunning and engaging film. The hidden cameras provide a raw and authentic feel to the film, which along with its expert editing weaves different elements together to create a cohesive and powerful story.

The hidden camera footage provides a unique perspective on the story in its allowing the audience to see the events unfold in real-time. One scene covertly captures Grigory Rodchenkov, the former head of Russia’s anti-doping laboratory, openly discussing the extent of the doping problem in sports, which provides a powerful insight into the corruption that exists in sports and the lengths to which people will go to achieve success.

Another example of the power of the cinematography in *Icarus* is the use of archival footage, which, interspersed with other elements, such as interviews and hidden camera footage create a powerful visual story. This archival footage provides a historical context to the events unfolding in the film and helps the audience to understand the complexity of the issue. In a scene in which the film intersperses footage of the Olympic Games with footage of athletes being tested for performance-enhancing drugs, the intercutting provides a powerful visual representation of the issue and helps the audience to understand the magnitude of the problem.

The film *Icarus* utilizes its cinematography to great effect in conveying its central themes and message. The film’s cinematography serves to underscore the serious and complex nature of the story, as well as to create a sense of intimacy and immediacy. Hand-held shots create a sense of intimacy and immediacy, allowing the viewer to feel like they are right there with the filmmaker, experiencing the story in real time, which adds a sense of veracity to the film. Visual symbolism underscores key themes and ideas,
as in the use of clouds and birds soaring in the sky to convey a sense of freedom, while
the repeated imagery of doors being closed and locked symbolizes the suppression of
information and the power dynamics at play. Contrasting shots create context and
realizations for the audience. For example, shots of Olympic athletes performing at their
peak are juxtaposed with shots of athletes being subjected to state-sponsored doping,
creating a stark and powerful visual contrast. Technical skill and precision in its shot
composition and framing are other important aspects of the film’s masterful
cinematography. From the careful use of lenses to create visual interest, to the skillful use
of lighting to set mood and atmosphere, the film demonstrates a mastery of the technical
aspects of cinematography.

Free Solo

Jimmy Chin, a filmmaker, and professional climber is known for his ability to
capture stunning footage of outdoor adventures while maintaining a focus on safety and
ethics. His philosophy as a filmmaker is to create compelling visual storytelling that
showcases the beauty and challenges of the natural world, while being mindful of the
impact that the filmmaking process has on the environment and the subjects.

Chin is passionate about telling stories that inspire and educate viewers about the
outdoor world, so he works to ensure that his films are not only visually stunning but also
thought-provoking and meaningful. He is known for his ability to balance his role as a
filmmaker with his responsibilities as a climber, which is apparent in the authenticity,
engaging passion, and clear respect for his subjects.

Free Solo is a critically acclaimed documentary film that explores the world of
climbing and the limits of human endurance. The film follows professional rock climber
Alex Honnold as he prepares to scale the sheer face of El Capitan, one of the most iconic and challenging rock formations in the world, without any ropes or safety equipment.

What sets *Free Solo* apart from other climbing documentaries is its focus on the psychological and emotional aspects of Honnold’s journey. Through a combination of breathtaking cinematography and in-depth interviews with Honnold, his friends and family, and other climbing experts, the film provides a deep and intimate look at the motivations, fears, and triumphs of a true climbing icon.

One of the most impressive aspects of *Free Solo* is its cinematography. The film’s stunning visuals capture the sheer majesty and beauty of El Capitan, while also conveying the sheer scale and difficulty of the climb. Whether it’s dizzying aerial shots of Honnold scaling the rock face, or breathtakingly close shots of his hands as he clings to tiny holds, the film's visuals are truly awe-inspiring.

The film also excels in its use of music, which helps to build tension and convey the emotional stakes of the climb. The haunting and melancholic score adds depth and nuance to the film, while also serving to amplify the intense and dramatic moments of the climb.

Another key aspect of *Free Solo* is its storytelling, which uses a variety of techniques, including interviews, voice-over narration, and archival footage to build a rich and complex narrative that explores Honnold’s motivations, his relationship with his girlfriend, and the intense physical and mental preparation that goes into this type of extreme climb. The film also provides insight into the climbing community and the history of climbing, making it not just a film about one climber, but about the sport.
Using dynamic camera movement, the film’s cinematography plays a crucial role in capturing the awe-inspiring and life-threatening journey of the climber and conveying the unique challenges he faces. This technique helps to convey the sense of motion, speed, and danger inherent in the sport of free solo climbing, and it allows the viewer to experience the climb right alongside the climber. The film’s use of high-angle shots from above the climbing routes offers a unique perspective that highlights the scale and difficulty of Honnold's climb. These shots are particularly effective in conveying the sense of height, exposure, and danger that Honnold faces. The film makes use of aerial shots to give a bird’s eye view of the climber’s progress, allowing the viewer to see the scale of the climb and the breathtaking surroundings. These shots are not only visually stunning, but they also provide a sense of perspective that reinforces the sense of danger and difficulty inherent in the sport. Close-up shots of Honnold’s hands and feet are used to create a sense of intimacy and to emphasize the precision and control required for his climb. These shots also help to convey the intense physical and mental focus that Honnold brings to his climb. The film uses stabilized shots, such as drones and cranes, to capture aerial views of the climbing routes and to convey the sheer scale and majesty of the landscape. These shots are particularly effective in creating a sense of perspective and helping the viewer to understand the vastness of the environment in which Honnold is climbing. Finally, time lapse shots of the changing light and shadows as the day progresses are used to create a sense of the passing of time and to reinforce the sense of urgency and danger that Honnold faces. These shots also help to convey the beauty and majesty of the natural environment.
While the result is a breathtaking and captivating film, the process of filming Honnold’s climb was not without its difficulties. One of the major obstacles that the filmmakers faced was the issue of safety. With such a high-risk activity, the filmmakers had to be close to the action to capture the footage necessary to create a compelling film. This immediacy put them in a dangerous position, requiring them to take steps to mitigate the risks involved while still getting the footage they needed. Another challenge was the potential intrusion on Honnold’s climb. While the filmmakers needed to capture intimate and compelling footage of Honnold, they also had a responsibility not to interfere or distract him during his climb. Finding a balance between these two priorities was crucial to creating a successful film. Other logistical aspects also presented a major challenge. Filming a climb of El Capitan was a complex and daunting task, requiring the filmmakers to get their equipment and crew to the top of the wall and ensure they could capture the climb from multiple angles. With weather also playing a significant role, as the climb was dependent on favorable conditions, the filmmakers had to be ready to capture footage whenever Honnold attempted the climb. The filmmakers also had to carefully consider the ethical implications of filming such a potentially dangerous event. They had to prepare for the possibility that Honnold might fall during the climb and take steps to ensure that their presence would not be a distraction or a contributing factor.

Despite these challenges, the directors of *Free Solo* were able to create a powerful and compelling documentary that captures the beauty and danger of Honnold’s historic climb. Through breathtaking cinematography and in-depth interviews with Honnold, the film provides a unique insight into the mindset and motivations of a free solo climber,
while also exploring the complex and often conflicting priorities involved in the process of creating a documentary film.

**My Octopus Teacher**

*My Octopus Teacher*, a 2021 documentary film directed by Pippa Ehrlich and James Reed, tells the story of filmmaker Craig Foster and his relationship with an octopus in a kelp forest off the coast of South Africa. This film has had a significant impact on my understanding of documentary filmmaking through its effective power of personal storytelling conveying a broader message about conservation and the interconnectedness of all living things.

Through the lens of the filmmaker’s relationship with an octopus, the film creates a powerful emotional connection between the audience and the subject. This connection not only engages the audience, but also underscores the importance of conservation and preservation of the natural world. The film is a compelling example of how documentary filmmaking can use personal narratives to convey a powerful message and evoke strong emotions in the audience.

The cinematography in *My Octopus Teacher* is a key factor in creating an immersive and captivating viewing experience in highlighting the beauty and majesty of the underwater world and effectively capturing the relationship between the filmmaker and the octopus. The filmmakers of *My Octopus Teacher* utilized several techniques to create powerful visuals that immerse the audience in the underwater world.

Time-lapse photography shows the changing moods of the kelp forest and the movements of the creatures that inhabit it. Drone footage captures sweeping aerial shots of the kelp forest, providing a sense of the vastness of the environment. The film also
features intimate close-up shots of the octopus, allowing the audience to observe its unique and fascinating features in detail. Furthermore, the underwater footage effectively captures the fluid and graceful movements of the octopus as it explores its environment. The cinematography in *My Octopus Teacher* is truly remarkable and is successful in conveying the beauty and majesty of the underwater world. It serves as a powerful reminder of the importance of protecting and preserving these fragile ecosystems.

In addition, the film’s sound design is carefully crafted to create an immersive and captivating environment. The sounds of the underwater world, including the rustling of the kelp and the sounds of the creatures that live there, add to the beauty and immersiveness of the film. The film’s score is haunting and beautiful, effectively conveying the emotions of the story and enhancing the beauty of the film’s visuals.

In conclusion, *My Octopus Teacher* is a beautiful and thought-provoking film that highlights the importance of conservation and the power of human-animal relationships through breathtaking cinematography, detailed sound design, and emotional storytelling that sets it apart from most other nature documentaries. It is a carefully crafted story, and one that I continue to revisit time after time.

**Sweetgrass**

*Sweetgrass* is a 2009 documentary film directed by Ilisa Barbash and Lucien Castaing-Taylor. The film captures the final summer of a group of Montana sheepherders as they lead their flocks into the Beartooth Mountains for grazing. Through stunning cinematography and minimal dialogue, the film provides an immersive and contemplative look at the harsh realities of rural life and the unique bond between humans and animals.
One of the most striking aspects of *Sweetgrass* is its minimalist approach to storytelling. The film is devoid of traditional narrative structure or interviews, relying instead on long, unbroken shots of the natural landscape and the daily rituals of the shepherders. This approach creates a meditative and almost hypnotic atmosphere, allowing viewers to experience the slow rhythms of life on the range and to form their own emotional connections with the characters and their surroundings.

*Sweetgrass* also highlights the power of observational filmmaking, which involves the filmmaker immersing themselves in the subject matter and capturing real-life events as they unfold, without any intervention or manipulation. This approach requires a tremendous amount of patience, skill, and trust on the part of the filmmaker, as they must be willing to let go of control and allow the story to reveal itself in its own time and on its own terms. By adopting this approach, *Sweetgrass* can capture the essence of a disappearing way of life and to offer a window into a world that is rarely seen by outsiders.

Overall, *Sweetgrass* is a masterful work of documentary filmmaking that pushes the boundaries of the genre and challenges viewers to engage with the world in a more contemplative and empathetic way. Its minimalist approach and commitment to observational filmmaking have inspired many filmmakers to explore new forms of documentary storytelling, and its enduring influence can be felt in a wide range of contemporary documentaries.

The cinematography in *Sweetgrass* is one of the film’s most striking elements, with its stunning and immersive visuals capturing the beauty and brutality of life on the range. The film frequently uses long, unbroken shots that allow the viewer to immerse
themselves in the world of the sheepherders and the landscape. For example, there are extended shots of the sheepherders setting up camp, cooking meals, and tending to their animals, which create a sense of intimacy and familiarity with their daily routines.

Throughout the film, the camera lingers on the vast, open spaces of the Beartooth Mountains, capturing the majestic beauty of the natural world in long, sweeping shots of the landscape. These shots convey the sense of isolation and immensity that the sheepherders must contend with as they navigate the rugged terrain and face the unpredictable forces of nature. The film also features many intimate shots of the sheep themselves, as well as the sheepherders as they tend to their flocks. These shots convey the tenderness and care that the sheepherders have for their animals, and the physical labor and emotional toll that their work demands. One of the film’s most memorable scenes is a nighttime sequence in which the sheepherders must fend off a pack of wolves that are attacking their flock. The scene is shot in near darkness, with the only illumination coming from the headlights of the sheepherders’ trucks and the flashes of their gunshots. This creates a sense of tension and urgency, as the viewer is forced to rely on glimpses and shadows to understand what is happening, immersing viewers in the immediacy of what the sheepherders themselves faced.

Overall, the cinematography in *Sweetgrass* is a powerful and immersive tool that transports the viewer into the world of the sheepherders and their flocks. The film's use of sweeping landscapes, intimate close-ups, nighttime sequences, and prolonged takes all contribute to a rich and evocative visual experience that brings this remote and vanishing way of life to vivid life.

*Leviathan*
Leviathan is a 2012 documentary film directed by Lucien Castaing-Taylor and Véréna Paravel. The film offers an immersive and experiential look at the fishing industry in New Bedford, Massachusetts, using a unique visual style and sound design that creates a visceral and disorienting experience for the viewer.

One of the most striking aspects of Leviathan is its unconventional approach to storytelling. Like Sweetgrass, the film eschews traditional narrative structure and interviews, but instead of using meditative, unbroken, immersive shots, it relies on an immersive, sensory-driven approach that blurs the line between documentary and avant-garde art. The filmmakers use a range of techniques, including handheld cameras, underwater cameras, and mounted cameras on the boats and equipment, to create a fragmented and disorienting visual and auditory experience.

The film’s innovative approach to sound design is also a key element of its impact. The filmmakers use a mix of diegetic and nondiegetic sounds, including the cacophony of the boats, the wind and waves, and industrial machinery, to create a visceral and unsettling soundscape that immerses the viewer in the world of the fishermen.

Overall, Leviathan is a powerful and challenging work of documentary filmmaking that pushes the boundaries of the genre and challenges viewers to engage with the world in a more unconventional and experimental way. Its unconventional approach and commitment to sensory-driven filmmaking have inspired many filmmakers to explore new forms of documentary storytelling, and its enduring influence can be felt in a wide range of contemporary documentaries.
Pushing beyond conventional understandings of documentary filmmaking, *Leviathan* showcases the potential of the medium to challenge our expectations and immerse us in new worlds. By breaking down traditional narrative structures and relying on sensory-driven approaches, the film forces the viewer to engage with the subject matter in a more visceral and immediate way. This approach offers a powerful tool for capturing complex social and environmental issues, encouraging viewers to think critically about the world around them.

The cinematography in *Leviathan* is an essential component of the film’s unique and immersive visual style. The film features many extreme close-ups of the fishing equipment, the fish, and the fishermen themselves. These shots create a sense of intimacy with the subject matter, allowing the viewer to see the textures, movements, and details that are often overlooked in more traditional documentary filmmaking. The filmmakers use a variety of unconventional camera angles, including low angles, overhead shots, and extreme wide shots, to create a disorienting and fragmented visual experience. These shots often show the subject matter from a unique perspective, encouraging the viewer to see the world in a new way. The film’s non-linear editing style creates a sense of disorientation and fragmentation, as the images and sounds are presented in a non-chronological order that encourages the viewer to engage with the film on a sensory level, rather than relying on traditional narrative structures. The filmmakers incorporate found footage, including security camera footage and shots taken by the fishermen themselves, into the film’s visual tapestry. This montage creates a sense of immediacy and authenticity, as the viewer is presented with raw, unfiltered glimpses into the lives of the fishermen and their world. The film’s sound design is as unconventional as its
cinematography, with a mix of diegetic and nondiegetic sounds creating a visceral and immersive sonic experience.

Overall, the cinematography in *Leviathan* is a powerful tool for creating a unique and immersive visual and sensory experience. The film’s use of extreme close-ups, unconventional camera angles, non-linear editing, found footage, and sound design all contribute to a film that challenges traditional documentary filmmaking and immerses the viewer in a world that is often overlooked or ignored.

**Eternal Amazons**

Belisario Franca is a Brazilian director with an impressive track record of series and documentaries made for television and cinema. For more than two decades, he has devoted his talent to drawing up an inventory of the material and immaterial culture of Brazil through a critical and investigative gaze, with a sufficiently light touch that spotlights many of the specific characteristics of Brazil. Very familiar with the realities of the people of Brazil, his audio-visual inventories—presented as series and documentaries—have won many local and international prizes. Outstanding among them are *Overseas*, which was voted the best television series by the International Documentary Association (IDA), and *Xavante Strategy*, which won the United Nation prize as the best art and media creation related to peace and music in Brazil and was ranked as the best cultural production for television in the Brazilian Cinema Grand Prix.

The documentary film, *Eternal Amazon*, tells the stories of people living in Amazonia and their efforts to find a balance between economics and ecology. The film presents a critical analysis of the world’s largest tropical rainforest, exploring whether it is possible for humans to make sustainable use of its resources. With its five million
square kilometers of land, countless plant, and animal species, and 20% of the world's freshwater reserves, the Amazon is a crucial ecosystem for our planet. However, it is also home to 25 million people and has been modified by human actions for thousands of years. The film showcases the efforts of executives, politicians, environmentalists, indigenous tribes, and riverbank communities working together to create a model for sustainable resource extraction with minimal environmental impact. Through the stories of those who live and work in the Amazon, *Eternal Amazon* highlights the challenges and triumphs of finding a balance between human economics and ecological preservation.

The atmosphere of their daily lives is presented visually in sensorial terms. The camera plunges and rises from the rivers, torrential rain pours down on the lenses, an airborne camera drifts through heavy clouds, the lens whips through the canopy of tall trees and bright sunlight are filtered by the forest gloom—all enveloped in tropical heat. We follow the narrative thread of the film like an explorer drifting along the lazy currents of Amazonia, where one stream flows into another, which in turn flows into yet another, seeking new watercourses that are intrinsically connected, just as the past is linked to the future, binding human beings to nature. With a budget of nearly 2 million dollars, *Eternal Amazon* is Brazil’s most impressive documentary production.

After conversation with Franca himself at a film festival hosted by the University of Maine, I was able to understand his intentions in directing this film, and gain a knowledgeable perspective on what exact techniques he implemented to direct this film. Our conversation was focused on cinematography and the tone of this film, in which one feels completely immersed in the Amazons. Franca described his approach to cinematography: placing cameras in the water, high up in the trees, and at unique
perspectives that made it seem as if one was immersed in the film. He described his approach as using the camera and the microphone in unconventional ways to achieve a visual and auditory experience that was “immersive” and “sensorial.” Nonetheless, it was inspiring to learn from his approach and garner a better sense of directing a social documentary film while also implementing unique cinematography techniques to shape the artistic form of the documentary film.

**Enron: The Smartest Guys in the Room**

*Enron: The Smartest Guys in the Room* is a documentary film that tells the story of the rise and fall of Enron Corporation, a Houston-based energy company that was once one of the largest in the world. Directed by Alex Gibney, the film is a masterful piece of investigative journalism that provides a detailed and nuanced account of the complex financial fraud and corruption that led to the company’s collapse in 2001.

One of the key strengths of the film is its use of a range of storytelling techniques to engage the audience and create a compelling narrative. The filmmakers use a mix of interviews with former Enron employees, journalists, and financial experts, as well as archival footage and reenactments, to build a nuanced and detailed picture of the events leading up to the company’s downfall. Through these techniques, the film creates a vivid and engaging story that keeps the audience hooked from beginning to end.

Another significant aspect of the film is its use of sound and visual effects to create a sense of drama and tension. The fast-paced editing, dramatic camera angles, and use of suspenseful music all work together to build a sense of urgency and keep the audience invested in the story. The use of these techniques is particularly effective during key moments in the film, such as in the revelation of the company’s accounting fraud,
where they help to heighten the impact of the story and create a sense of shock and disbelief.

Perhaps the most significant impact of the film is its ability to shed light on complex financial concepts and make them accessible to a wider audience. Through interviews with financial experts and journalists, the film breaks down the complicated world of corporate finance and accounting into simple and understandable terms. It shows how Enron’s top executives manipulated their financial statements and used off-balance sheet entities to hide debt and inflate profits, all while maintaining the illusion of a successful and thriving company. By making these concepts accessible, the film allows the audience to gain a deeper understanding of the Enron scandal and the dangers of corporate greed and corruption.

*Enron: The Smartest Guys in the Room* is an essential documentary film that sheds light on one of the biggest financial scandals in modern history. The film serves as a cautionary tale about the dangers of unchecked corporate greed and the risks of financial fraud and manipulation. It highlights the importance of transparency, accountability, and regulation in the corporate world and serves as a warning against the potential risks of unchecked capitalism. From an economic perspective, the film is an important reminder of the potential negative consequences of corporate misconduct and the impact it can have on the broader economy. The Enron scandal led to a significant loss of investor confidence and trust in financial institutions, which had far-reaching consequences for the economy. The collapse of Enron also had a significant impact on the energy industry, leading to increased scrutiny and regulation of energy trading and derivatives markets. Furthermore, the film demonstrates how financial engineering and
manipulation can create artificial profits and inflate stock prices, leading to significant financial losses for investors and stakeholders. It highlights the importance of transparency and accurate financial reporting in maintaining investor confidence and preventing corporate misconduct.

Overall, *Enron: The Smartest Guys in the Room* is a powerful and impactful film that provides a valuable lesson in documentary filmmaking. Through its use of storytelling techniques, sound and visual effects, and accessibility to complex financial concepts, the film demonstrates how documentaries can be used to engage audiences, create compelling narratives, and shed light on important social issues. It serves as a reminder of the importance of investigative journalism and the critical role that documentaries play in holding those in power accountable.

A Short History of the World’s Most Important Art Exhibition

Oscar Boyson is a filmmaker who has directed and produced several documentary films, short films, and music videos. His filmmaking style is known for being visually striking, fast-paced, and intellectually engaging. One of Boyson’s distinctive traits is his use of innovative visual techniques, such as split-screen imagery, fast cuts, and dynamic camera movements. He often incorporates archival footage and multimedia elements to create a rich, layered experience for viewers.

Boyson’s films also tend to explore complex social and cultural issues, often with a philosophical or political bent. He is interested in examining the intersections of technology, media, and society, and his work often raises thought-provoking questions about the nature of human experience in the digital age. Overall, Boyson’s filmmaking
style is characterized by its artistry, intellectual rigor, and engagement with contemporary issues.

Oscar Boyson’s video essay, *A Short History of the World’s Most Important Art Exhibition*, is a visually compelling exploration of the history and significance of the Venice Biennale, one of the oldest and most prestigious art exhibitions in the world. The video essay opens with sweeping aerial shots of Venice, establishing the city as a backdrop for the exhibition’s history. Boyson then provides a concise yet comprehensive overview of the Biennale’s origins, from its founding in 1895 as a showcase for Italian art to its evolution into a global event that attracts artists and audiences from around the world.

Oscar Boyson's video essay *A Short History of the World’s Most Important Art Exhibition* is a masterful work of documentary filmmaking. The film is expertly crafted, combining archival footage, interviews with artists and curators, and stunning visuals of Venice to create a visually striking and intellectually engaging exploration of the Venice Biennale. What makes Boyson’s film so effective is its ability to blend history, culture, and art into a cohesive and compelling narrative. The film provides a thorough overview of the Biennale’s history, but it also goes beyond mere facts and figures to explore the event’s cultural and artistic significance. Boyson’s use of interviews with artists and curators adds depth and nuance to the film, allowing viewers to gain insight into the creative process and the challenges faced by those who organize and participate in the exhibition.

Throughout the video essay, Boyson incorporates archival footage and interviews with artists and curators to provide insight into the Biennale’s artistic and cultural
significant. He highlights key moments in the exhibition’s history, such as the controversial German pavilion in 1938 and the rise of conceptual art in the 1960s. In addition to its historical focus, the video essay also touches on contemporary issues facing the Biennale, such as the challenges of representing diverse voices and the tensions between commercial interests and artistic integrity. Overall, A Short History of the World’s Most Important Art Exhibition is a thought-provoking and visually stunning exploration of one of the art world’s most significant events, offering insight into the history and evolution of the Venice Biennale while also raising important questions about the role of art and culture in a globalized world.

As a documentary filmmaker, Boyson’s video essay has informed my understanding of the importance of research, visual storytelling, and the need to find new and innovative ways to present complex information. The film demonstrates how effective storytelling can help us to understand complex cultural phenomena and to appreciate the significance of historical events.

The “do it yourself” (DIY) style of filmmaking pioneered by Oscar Boyson, and other filmmakers such as Casey Neistat and Tom Sachs, is characterized by a focus on self-expression, resourcefulness, and authenticity. It involves using low-cost equipment, improvising solutions to technical challenges, and taking a hands-on approach to every aspect of the filmmaking process. In this approach, the filmmaker often acts as a one-person crew, handling everything from camera operation to editing and sound design. This direct approach allows for greater creative control over the final product and a more personal, intimate style of storytelling. DIY filmmakers also prioritize experimentation and risk-taking, often pushing the boundaries of traditional filmmaking techniques and
formats. They embrace imperfections and flaws as part of the creative process and are not afraid to try new things or make mistakes. Nevertheless, this approach has been the most influential to my development as a filmmaker, and it has encouraged me to value authenticity and originality in my work above all else.

**Anthony Bourdain: Parts Unknown**

*Anthony Bourdain: Parts Unknown* is a groundbreaking and thought-provoking television series that provides a unique and insightful look into the world’s cultures, cuisines, and societies. The series, which was hosted by the late chef, author, and TV personality, Anthony Bourdain, takes viewers on a journey to some of the world’s most fascinating and little-known destinations. Through Bourdain’s signature blend of food, travel, and cultural exploration, the series provides a window into the lives and experiences of people from around the world.

In terms of its impact on my understanding of documentary filmmaking, *Anthony Bourdain: Parts Unknown* demonstrates the power of combining a strong narrative voice with vivid and captivating visuals. The series is driven by Bourdain’s distinctive persona and perspective, and its success is largely due to his ability to connect with the audience and bring them along on his journey. Additionally, the series effectively employs a range of cinematographic techniques, such as sweeping shots of exotic landscapes and intimate moments with locals, to bring each location to life and provide a rich and immersive viewing experience. Overall, *Anthony Bourdain: Parts Unknown* is a testament to the power of storytelling and the impact that a strong, personal narrative voice can have on the success of a documentary. It provides a valuable lesson in the art of documentary filmmaking and demonstrates how the combination of a distinctive voice, vivid visuals,
and immersive storytelling can result in a truly captivating and impactful viewing experience.

Anthony Bourdain’s mission in his travel documentaries was to showcase the diverse cultures and cuisines of the world and to give viewers a deeper understanding of the people and places he visited. He aimed to break down stereotypes and prejudices through his storytelling and to give viewers a more authentic and nuanced understanding of the world. In his shows, Bourdain traveled to a wide range of countries, from well-known tourist destinations to lesser-known and off-the-beaten-path places, always with the intention of seeking out local, authentic experiences rather than sticking to more touristy perspectives. He also often sought out lesser-known, underrepresented communities and highlighted their stories and perspectives. Bourdain’s approach to travel was also heavily focused on food. He sought out local and traditional dishes and often highlighted the way that food is central to a culture, both in terms of its history and its role in daily life. He also often focused on the people behind the food, from street vendors to Michelin-starred chefs, and the stories they had to tell.

Bourdain brought attention to the political and social issues that he encountered in the places he visited, such as poverty, war, and human rights abuses, in a sensitive and nuanced manner that often gave an opportunity to otherwise neglected people to share their stories, perspectives and struggles. His travel documentaries showcase the diversity of the world, its people, cultures, cuisines to give an authentic and nuanced understanding of the world, and to break stereotypes and prejudices through storytelling.

_Anthony Bourdain: Parts Unknown_ uses cinematography to bring its subjects to life and provide a rich and immersive viewing experience. The series employs a range of
techniques to create a visual style that is both beautiful and engaging, and that effectively captures the essence of each location visited. The series features sweeping shots of exotic landscapes and urban environments that provide a sense of place and set the scene for each episode, balanced with close-up shots of Bourdain interacting with locals, which adds a sense of intimacy and connection with the audience. The series employs dynamic camera movements, such as sweeping pans and crane shots, to create a sense of energy and movement, to then showcase the food and drink of each location with stunning close-up shots and slow-motion footage. Overall, the cinematography in *Anthony Bourdain: Parts Unknown* is an integral part of the series’ success, and it effectively employs a range of techniques to bring each location to life and provide a rich and immersive viewing experience.
CHAPTER THREE

METHODOLOGY

This methodology chapter includes a discussion on my creative process through each phase of the traditional framework for documentary filmmaking (i.e., pre-production, production, post-production).

Pre-Production

Pre-production is the stage that involves determining the subject matter and the interviewees. Pre-production also involves production design, in other words, determining the locations for capturing the raw footage and B-roll, as well as drafting the storyboard. Additionally, pre-production involves determining the necessary equipment and financial support. Finally, pre-production involves assembling a crew, and in my case, a crew of committee members spearheaded by an advisor to provide me with consultation and critique throughout all stages in the traditional framework of documentary filmmaking.

Determining the subject matter involved a great deal of academic research. As previously stated, the subject matter of this documentary short film is relative to my academic field of study, international political economy, and I was able to determine the subject matter because of my previous exposure to the academic research on the subject matter.

Determining the interviewees involved a great deal of networking. I had to reach out to several potential interviewees. These potential interviewees were selected based on the following criteria: (1) Their involvement in and relation to student activism and the
student organization, University of Maine Climate Action (UMCA), formerly known as Divest UMS, as well as their involvement in and relation to the University of Maine community. (2) Their expertise on the subject matter of climate action through fossil fuel divestment. In addition, I had to obtain necessary permissions from the Institutional Review Board (IRB) along with both the written and verbal consent for conducting and recording the interview.

Since I had already established acquaintances with many of the potential interviewees, it was a relatively uncomplicated task to network with them to organize, conduct, and record interviews with them. Tamra Benson, a student activist, was my main contact and liaison who provided me with the names of other student activists and individuals who I could potentially interview. I met with Benson numerous times to discuss the documentary short film. Benson granted me many opportunities to capture B-roll of UMCA’s meetings, climate strikes, events, etc. In retrospect, networking was key in determining the interviewees of this documentary short film. Fortunately, I was able to connect with local community leaders and political figures, as well as a Distinguished Maine Professor, Dr. Ivan Fernandez.

Determining the locations for capturing the raw footage and B-roll involved visiting numerous locations with the intention of identifying the best possible location to conduct and record interviews, as well as the best possible location to capture contextualizing shots. In other words, this process of pre-production involved a great deal of “tech scout” expertise. I had to visit numerous locations with the intention of identifying whether it could be consistent with the aesthetic, color palette, and style I was aiming to establish throughout the documentary short film. I was also aiming to select
locations that could capture high quality, bright light, soft and warm colors. Overall, I was aiming to create a cohesive aesthetic, color palette, and style that matched the mood of bright and sunny days in the summer and fall.

I visited numerous locations at the University of Maine to conduct and record interviews. The locations at the University of Maine that I selected included the following: Buchanan Alumni House, Charlie’s Terrace, Colvin Hall, and Nutting Hall. I also visited a location outside of the University of Maine to conduct and record an interview, and that location was the Wilson Center (67 College Avenue: Orono, ME 04473). I also visited locations to capture B-roll. Those included: The University of Maine Hutchinson Center (80 Belmont Ave, Belfast, ME 04915), Nine Dragons Paper Old Town Mill (ND Paper Old Town Mill, Old Town, ME 04468).

Determining the storyboard involved a great deal of conceptualization. The storyboard essentially looks like a written version of the documentary short film that is structured in the format of a two-column script. The storyboard is split into two columns: the left column of the script will describe the visual narrative the audience will see (interviews, B-roll, still images, diagrams, transitions, etc.) and the right column will describe the audio narrative the audience will hear (interviews, diegetic and non-diegetic sound, music, narration, transitions, etc.). In summary, each row in the storyboard equals one scene in the documentary short film. The storyboard is also a working document that is aimed at predicting what my final cut will look like, but it is meant to be a starting point in creating a cohesive visual narrative supported by the elements of sound design.38

---

38 Appendix C: Storyboard
Determining the necessary equipment also involved a great deal of research. In consultation with my committee, I was able to select all the necessary equipment to undertake this documentary short film. My main concerns were that the equipment could be used for future documentary short films, that the equipment was lightweight and useful for travel, and that the equipment was durable and reliable, but also cutting-edge. Apart from these main concerns, I had many reservations about the budget for this documentary short film but determining the financial support would follow this decision on what equipment I would be using for this documentary short film.

The camera that was used in this documentary short film took photos and recorded in 4K video, or 2K video at various frame rates including 60fps, or 1.5K at 120fps. It had a lead screw-type STM motor that enabled smooth autofocusing and optical image stabilization, as well as a control ring that allowed for quick setting changes, including shutter speed and aperture. Its lens-range of 18mm to 105mm allowed for a versatile zoom range and capturing different subjects with ease. Shooting a documentary short film at times is much more of a “run-and-gun” situation where one requires flexibility over quality, which favors a compact and lightweight camera. Finally, shooting lengthy but informative interviews burns through a camera’s battery, necessitating a camera that had a long-lasting battery.

The microphone recording the interviews had a Rycote Lyre-based shock-mounting system that isolated the microphone capsule and electronics from the shoe mount to help eliminate rumbling and vibration. The microphone also had a super cardioid polar pattern that enabled highly directional recording to help minimize

---

39 Canon EOS RP Mirrorless Camera with RF 24-105mm f/4-7.1 IS STM Lens
distracting background noise. Most importantly, the microphone had a condenser capsule that captured clear and high-quality sound.\textsuperscript{40}

The light that was used in this documentary short film worked well in multiple situations both indoors and outdoors. For instance, if I put it off to the side of my subject at a 45-degree angle pointed downward it would work well if I had some window light backlighting them. I could also position my camera in the center of the light and shoot through it at my subject. In summary, it is a viable lighting kit that is multifaceted. The light was a compact and portable ring light of 18 inches that boasted a 3,200 to 6,000K variable color range. Since this light was an LED, it had a relatively low power consumption. In addition, I was able to dial in the Kelvin of the lighting temperature to match almost any ambient light situation, including room light, or alter just for creative expression. The light was mounted on a ball head that allowed me to place it wherever I wanted. In addition, it was prepared for worldwide use via its included AC adapter, and it was also able to run on two NP-F batteries when AC power was unavailable.\textsuperscript{41}

Determining the necessary financial support also involved a great deal of networking. I was a recipient of the Center for Undergraduate Research (CUGR) Fellowship, 2022–2023 (US$1,500). On behalf of this financial award, I was granted the opportunity to present at the Annual University of Maine Student Symposium. I was also a recipient of the Honors College Charlie Slavin Research Grant, 2022–2023 (US$300). These financial awards were used as support to purchase the necessary equipment to pursue this documentary short film. For that reason, this documentary short film was

\textsuperscript{40}RÖDE VideoMic On-Camera Shotgun Microphone
\textsuperscript{41}Savage Luminous Pro Bi-Color LED Ring Light
considered “media advocacy” and created in collaboration with the University of Maine and the Center for Undergraduate Research (CUGR).\textsuperscript{42}

**Production**

Production is the stage that involves capturing the raw footage and B-roll, as well as recording the sound for the interviews, as well as the diegetic and nondiegetic sound of this documentary short film. This stage in the traditional framework of documentary filmmaking requires camera and microphone operation, as well as lighting techniques, all of which are valid qualitative research methods in addition to those discussed in the critical analysis in Chapter Four below. Above all, the production stage places an emphasis on journalism and interview techniques, as well as cinematography.

The production stage is primarily concerned with cinematography, for as previously mentioned, I engaged with camera and microphone operation, as well as lighting techniques. I operated the Canon EOS RP Mirrorless Camera with RF 24-105mm f/4-7.1 IS STM Lens, the RØDE VideoMic On-Camera Shotgun Microphone, and the Savage Luminous Pro Bi-Color LED Ring Light on eight interviews over the course of a year. Each interview that was conducted and recorded lasted approximately thirty to ninety minutes.

The three initial interviews were not included in the final cut of the documentary short film, and only two of the three initial interviews were included within the rough cut. These three initial interviews, conducted and recorded in the first-floor classroom of Balentine Hall at the University of Maine, were each of student activists involved with

\textsuperscript{42} Appendix D: Funding
climate action at the University of Maine. The raised windows, powerful day-light, clean
white brick background, and quiet space made it so that the camera could capture a clear
and focused image with a warm tone, with audio capturing clear sound throughout the
interview without any disruptions. While these three initial interviews were promising starts, they were not included in the final cut of the documentary short film because they were not effective for the film as it evolved into its final shape. The three initial interviews were the only interviews that were conducted and recorded in the exact same location. This process could have been avoided by being more forward-thinking and proactive during the pre-production stage, but the information that I gathered from each interview was valuable in terms of constructing the narration for the documentary short film.

The subsequent interviews were conducted and recorded at different indoor and outdoor locations, and the variety in these interviews improved the visual aesthetic and narrative continuity of the documentary short film. Their variety in terms of location and framing kept the visual aesthetic and narrative more appealing and consistent; therefore, I decided to include them all in the final cut of the documentary short film. Additionally, after conducting and recording the three initial interviews, and after consultation with the committee, I gained a deeper understanding of the journalism and interview techniques that I had to practice achieving more successful interviews going forward.

After the phase of conducting and recording the three initial interviews, the subsequent interview was with the Director of the Wilson Center, Dr. Sonja Birthisel. Her perspective was on the importance of civic engagement and leadership in the face of climate change. She also argued that fossil field divestment challenges us to reevaluate
our current systems and make difficult choices for the sake of future generations. This interview was conducted and recorded in the summer at the Wilson Center. In post-production, I edited the raw footage from this and all ensuing interviews to focus them to their most salient points.

The next interview was with Distinguished Maine Professor, Dr. Ivan Fernandez. Fernandez’s perspective was on how policies, such as fossil fuel divestment, can be implemented to mitigate the impacts of climate change. In addition to defining climate justice, he also expressed his concern for future generations and the need for good governance. This interview was conducted and recorded in the summer at Nutting Hall.

The next interview was with Maine State Senator, Mike Tipping. His perspective was on the importance of civic engagement and leadership in movements that strive for positive social and environmental change. He also expressed the concerns of climate change experts and the need to act now. This interview was conducted and recorded in the summer at the Buchanan Alumni House.

The next interview was with Student Activist, Tamra Benson. Benson’s perspective was on the effectiveness of social capital in the fossil fuel divestment movement. She also provided a compelling personal reflection on a previous experience regarding testifying in front of the Board of Trustees to foster fossil fuel divestment. This interview was conducted and recorded in the fall at Colvin Hall.

The final interview was with Student Activist, Ryan O’Leary. His perspective was on contextualizing the role of higher education institutions in advancing the fossil fuel divestment movement. He also described how it has drawn attention to the relationship
between students and decision-makers, most significantly, the Board of Trustees. This interview was conducted and recorded in the fall at Colvin Hall.

Overall, the journalism and interview techniques I engaged with during the production stage sought to create a confident and comfortable environment for the interviewees for our conversation to flow naturally. These techniques facilitated the pacing, structure, and tone of the conversation. My goal was to make it seem as if the camera were not there at all, and that the interviewee and I were simply having a conversation about a subject matter about which they had substantial expertise and knowledge. In addition, I was attempting to create an environment in which they felt confident and heard, and an environment that was comfortable to meet their personal needs. The questions that I asked required thoughtful planning. I needed to be direct, and I needed to ask different questions to each interviewee based on their expertise. In addition, I had to split my attention between the actual conversation, the operation of the camera, and the operation of the audio.

Post-Production

Post-production is the stage that involves editing, sound design, color correction and grading, mastering, and compressing, as well as distribution and promotion. Within this discussion, I have included some of Walter Murch’s insights and unique perspectives on film editing. Murch is an Academy Award-winning film editor who worked closely with historic film directors including Francis Ford Coppola. Murch’s book, In the Blink

43 Appendix B: Interview Questions
of an Eye, offers many crucial lessons about the art of film editing and the qualitative research methods it requires.

Editing is the main process of post-production. Generally, it involves assembling the raw footage into a cohesive visual narrative. It also includes the selection and organization of the raw footage and B-roll, the distillation, cutting, and arrangement of raw footage in order, the specific placement of B-roll, and the creation of transitions and effects, as well as the implementation of still images and texts. Murch notes that “Editing is not merely a method of the junction of separate scenes or pieces but is a method that controls the ‘psychological guidance’ of the spectator.”44 This quote emphasizes the importance of editing in guiding the audience’s emotional and psychological responses to a film, while also emphasizing the role of the film editor in shaping the narrative and emotional flow of a film.

To engage in the post-production stage, I had to demonstrate an advanced understanding of industry-standard software related to audio and video editing. In this case, I relied on Adobe Premiere Pro, Adobe After Effects, Adobe Audition, and Adobe Media Encoder. Adobe Premiere Pro is a timeline-based and non-linear industry standard video editing software application developed by Adobe Inc. Adobe After Effects is a digital visual effect, motion graphics, and compositing application developed by Adobe Inc. Adobe Audition is a digital audio workstation that features both a multitrack, non-destructive mixing and editing environment, as well as a destructive-approach waveform

44 Walter Murch, In the Blink of an Eye: A Perspective on Film Editing, Silman-James Press (2005), ISBN: 9781879505629
editing view. Adobe Media Encoder is a software used to master and compress videos and share videos in preparation for the distribution and promotion process.

For me, selecting and organizing the raw footage was an extensive process. I began by downloading and importing the raw footage to Adobe Premiere Pro, then selecting all of the raw footage from each interview and organizing it so that it would match the overarching narrative of the story; in other words, making it so that the editing sequence matched the storyboard and the narration. Additionally, I made use of color-coding to compartmentalize the raw footage from each interview. After establishing the overarching narrative flow of the film in Adobe Premiere Pro, I relied on Adobe After Effects to create the logos, transitions, and texts, as well as the start and end credits.

I then proceeded to distill, cut, and arrange the raw footage from each interview. I began by removing the pauses, disruptions, and instances when the interviewee would correct any error, or instances when I would be delivering my questions and commentary. The total combined duration of raw footage from each interview amounted to approximately eight hours. Essentially, I distilled the raw footage from each interview so that only important talking points were left which resulted in approximately thirty minutes of talking heads. This stage was the general starting point for the more detailed-oriented and technical approach to editing in post-production.

Consequently, I was tasked with removing all the talking points I deemed important, but that were ultimately unnecessary to the overarching narrative of the story. In short, I had to “kill my darlings.” This approach effectively narrowed the raw footage down to approximately fifteen minutes, and I could now begin the specific placement of B-roll, the creation of transitions and effects, as well as the implementation of still images.
and texts to create a cohesive visual narrative. Furthermore, it was through the editing process, which involved cutting, that the pacing and rhythm of the film was established. This was an exciting process, and one where much of the creative input and discovery took place. My own aesthetic sensibilities were able to guide the overarching narrative of the story, and I was able to deliver a rough cut of the documentary short film that was prepared for the next steps in post-production. According to Murch, the highest priority of the film editor is to tell a story through the careful selection and organization of raw footage and B-roll. Murch taught me to value and embrace simplicity and efficiency throughout the editing process by understanding that the overall structure of the film and the clarity of its subject matter and overarching meaning were most important.

More specifically, during the editing process, I knew that I had to focus on the delivery of a compelling introduction and conclusion. After reading Murch and digging deeper into the methodologies of my preferred directors and editors, I learned that the introduction and conclusion were the most important parts around which to build the rest of the film. I knew that in dealing with a subject matter related to student activism, I needed to begin with the student activists themselves and I needed to begin by displaying their voices during their climate strike to set the mood. I began with a speech given by a student activist named Cameron Nelson at one of the climate strikes. His speech was centered on the information surrounding the climate crisis and what that meant for future generations. It was a powerful introduction, not only because it centered the subject matter, but because it gave the documentary short film a "raw" and cinematic look.

I followed this part with my narration because it supported Nelson’s speech. With my narration, I was able to bring attention to the fact that higher education institutions
like the University of Maine and student activists like Nelson were at the center of the fossil fuel divestment movement. Essentially, I brought context to Nelson’s speech, centering the University of Maine as the setting for this documentary short film, so that I could bring attention back to the student activists whose voices I was going to amplify within this documentary short film.

As for the body of the documentary short film, it was mainly composed of interviews. The three initial interviews were not included in the final cut of the documentary short film, and only two of the three initial interviews were included within the “rough cut.” These three initial interviews were conducted and recorded in the first-floor classroom of Balentine Hall at the University of Maine, and they were each of student activists involved with climate action at the University of Maine. Nevertheless, the raised windows, powerful day-light, clean white brick background, and quiet space, made it so that the camera could capture a clear image with a warm tone, and that the audio could capture clear sound throughout the interview without any disruptions. However, these three initial interviews were not included in the final cut of the documentary short film after consulting with the committee and after deciding that the visual aesthetic and narrative of the documentary short film could not be jeopardized on behalf of them. The three initial interviews were the only interviews that were conducted and recorded in the exact same location. This process could have been avoided by being more forward-thinking and proactive during the pre-production stage, but the information that I gathered from each interview was valuable in terms of constructing the narration for the documentary short film.
After conducting and recording the three initial interviews, and after consultation with the committee, I gained a deeper understanding of the journalism and interview techniques that I had to practice to achieve more successful interviews going forward. The subsequent interviews were all included in the final cut of the documentary short film.

The first interview was with Maine State Senator, Mike Tipping. I decided to include Tipping at the start of the documentary short film since his perspective was on the importance of civic engagement and leadership in movements that strive for positive social and environmental change. I incorporated B-roll from the University of Maine Climate Action (UMCA) climate strike at the University of Maine campus on September 23, 2022, as well as the University of Maine System Board of Trustees meeting at the University of Maine Hutchinson Center on July 11, 2022, to visually support Tipping’s interview.

The next interview was with the Director of the Wilson Center, Dr. Sonja Birthisel. Her perspective underscored the importance of civic engagement and leadership in the face of climate change. I created a smooth transition between Birthisel’s interview and my narration by including the UMCA climate strike at the University of Maine campus on September 23, 2022, in which student activists were chanting. My narration was supported by additional B-roll of the University of Maine banner and B-roll of Stevens Hall with an aim to effectively pose a serious question regarding the role of higher education institutions and student activists in facilitating, fostering, and furthering the fossil fuel divestment movement. Additionally, I followed Birthisel’s interview with my narration to introduce a student activist, Ryan O’Leary.
O’Leary’s perspective contextualized the role of higher education institutions in advancing the fossil fuel divestment movement, specifically drawing attention to the relationship between students and the decision-makers, the Board of Trustees. I incorporated a still image of a previous UMCA climate strike in black and white and incorporated B-roll from Divest Harvard and their student activists and climate strike to support O’Leary’s interview. B-roll from the UMCA climate strike on September 23, 2022, in which student activists were chanting, visually reinforced the importance of student activists in the fossil fuel divestment movement, while also creating a transition from one of his talking points to another. This second talking point expressed his feelings of “climate anxiety” and his concerns for how future generations will mitigate the effects of climate change.

Using B-roll, I narrated a summary of O’Leary’s perspective to bring attention to the student activists who were present within this story. This narrative segment also proved to be a smooth transition from O’Leary to the next interview with another student activist, Tamra Benson.

I decided to include Benson in the middle of the documentary as I thought that featuring student activists was most important to the overall subject matter of the film. Benson’s perspective was on the effectiveness of social capital in the fossil fuel divestment movement. I incorporated a still image of a previous UMCA climate strike in black and white to support Benson’s interview and B-roll from the UMCA climate strike on September 23, 2022, to support her interview. I included B-roll from the UMCA climate strike on September 23, 2022, in which student activists were chanting, in an attempt to visually reinforce further the importance of student activists in the fossil fuel
Benson’s second talking point was a compelling personal reflection on a previous experience regarding testifying in front of the Board of Trustees to foster fossil fuel divestment. Before revealing her testimony, I incorporated B-roll from the University of Maine System Board of Trustees meeting at the University of Maine Hutchinson Center on July 11, 2022, to support her perspective on speaking in front of the Board of Trustees, to capture how it was both nerve-racking and empowering at the same time.

Complementing Benson’s testimony, I included the archival footage from the University of Maine System Board of Trustees meeting at the University of Maine Hutchinson Center on July 11, 2022, along with still images from the UMCA climate strike in black and white. I decided to include this part because it would not only support the overall subject matter and center the importance of student activists in the fossil fuel divestment movement, but also build empathy towards student activists and reveal both their feelings of courage and vulnerability regarding speaking in front of the Board of Trustees. I thought that this part of the film was most compelling because one could hear the real-life testimony of a student activist raising awareness about this issue to the Board of Trustees. In my opinion, it gave the subject matter more depth both in terms of its storyline and its artistic expression. This idea began with my finding an artistic and authentic way to somehow include the still images from the UMCA climate strike in black and white. I knew that these still images were powerful to the overall subject matter, and I knew that they had the potential to be included, but it was only until I discovered the archival footage from the past University of Maine System Board of
Trustees meetings, in which I decided that the still images could be used as a backdrop for the testimony I had found within the footage itself. Nevertheless, this part of the documentary short film essentially concluded the various perspectives of student activists it featured.

The next interview was with Distinguished Maine Professor, Dr. Ivan Fernandez. I decided to include Fernandez at the end of the documentary short film as a concluding segment that followed the segments of student activists, O’Leary, and Benson, since his perspective was on how policies, such as fossil fuel divestment, can be implemented to mitigate the impacts of climate change. Fernandez began his interview by defining climate justice, so I included B-roll of the Martin Luther King Jr. Plaza at the University of Maine campus to contextualize that concept of justice as specifically a social justice, by including Dr. King’s well-known quote noted in the plaza: “Injustice anywhere is a threat to justice everywhere.” The B-roll supported Fernandez’s interview quite well, in recentering climate change as an act of social justice.

Once again, I inserted narration and B-roll to support Fernandez’s interview and provide a smooth transition from one of his talking points to the next. After he defined climate justice, I once again centered the subject matter and gave merit to the student activists who played an important role in convincing the minds of the Board of Trustees to get them to implement climate justice policy through fossil fuel divestment.

Fernandez also expressed his concern for future generations and the need for good governance. I thought that this additional perspective illustrated that fossil fuel divestment was not only a movement being led by student activists at higher education institutions, but that it was also a global phenomenon that was closely related to climate
justice and good governance, which integrated the work of student activists into a larger social movement. Additionally, Fernandez revealed some of the negative economic impacts of investing in fossil fuels, while I decided to include B-roll of data collected by the NEPC that illustrated fossil fuel industry leaders and their respective levels of emissions.

In addition to the B-roll of data, I incorporated B-roll of a map that illustrated the United States and Western Europe in an attempt to support Fernandez’s argument on how these nations were among the regions of the world that have been most significantly affected by climate change. His interview was rather informative, and it raised many important arguments, concerns, and questions. Lastly, his perspective provided a smooth transition into my final narration which would be used as a bridge between the body and the conclusion of the film, which featured the remarks of Tipping, Birthisels, and O’Leary.

My narration focused on summarizing the main arguments against the fossil fuel industry and the main arguments in favor of fossil fuel divestment, noting all the negative impacts of investing in fossil fuels and what it actually meant to divest from fossil fuels. I created a contrast between these two talking points by including B-roll of the smoke billowing from the stacks of the Nine Dragons Paper Old Town Mill, and then proceeded to run the B-roll footage backwards to illustrate the talking point of “divesting from fossil fuels,” or more specifically, “reversing the negative impacts of investing in fossil fuels.”

I also decided to include Tipping at the end of the documentary short film, since he expressed the concerns of climate change experts and the need to act now. His restatement of the major issues worked well as a smooth transition from Fernandez, who
was in fact an expert on climate change. Tipping also added to Fernadnez’s narrative of expressing concerns for future generations.

I also decided to include Birthisel at the end of the documentary short film as her argument on how fossil field divestment challenges us to reevaluate our current systems and make difficult choices for the sake of future generations was not only compelling but all-encompassing of the subject matter at hand.

I knew that I had to center the student activists while writing and directing the documentary. After including interviews from Tipping and Birthisel at the end, I decided to conclude with a talking point given by a student activist named Ryan O’Leary. He reflected on the importance of climate action through fossil fuel divestment, and how he expects the fossil fuel movement to unfold in the years to come. In addition, he admitted that there were many problems related to the climate crisis that are currently unresolved, but he was confident that future generations would raise awareness, concerns, and further questions on climate action. Finally, he stated that the voice of future generations, and students, has been heard by decision makers, like the Board of Trustees, and that the success of the fossil fuel divestment movement will build more momentum for change. I included B-roll from the UMCA climate strike on September 23, 2022, and the University of Maine System Board of Trustees meeting at the University of Maine Hutchinson Center on July 11, 2022, to visually illustrate how the fossil fuel divestment movement has raised awareness about the overall relationship between students and decision makers, like the Board of Trustees. Including Fernandez, Birthisel, and O’Leary at the end brought closure to the cyclical visual narrative of the story, in the sense that since they were at the start, that they should also be at the end of the film to reinforce
their presence as sympathetic characters. I chose to end the film with the voice of a student activist to centralize the importance of their role in the fossil fuel divestment movement.

Sean Baker, one of the filmmaker’s I admire the most, discussed his personal methodology and how he would place sticky-notes on a blank wall or on a desk to visually illustrate and manually organize his editing decisions in the post-production stage. I did the same and found that this strategy within the editing process was quite helpful in terms of deciding what specific B-roll should be included and where it should be placed.

B-roll from the UMCA climate strike at the University of Maine campus on September 23, 2022, as well as the Board of Trustees meeting at the University of Maine Hutchinson Center on July 11, 2022, and on their publicly available recording on YouTube provided a humanized, visual presence of these groups.\textsuperscript{45} I decided to support the visual narrative and warm tone of the documentary short film by including B-roll of the University of Maine campus that was taken during bright and sunny days in the summer and fall of 2022. In many instances, I required B-roll of the University of Maine architecture to support my narration during instances when I would mention “institutional change,” “the University of Maine,” and the importance of Dr. King’s quote to UMaine’s core values.

Editing the still images of student activists during various climate strikes on the University of Maine campus from the years 2019–2023 in black and white visually tied

\textsuperscript{45} University of Maine System Board of Trustees Meeting: July 11, 2022, University of Maine System Board of Trustees, YouTube, www.youtube.com/watch?v=zi6RjwuaauA&t=1499s
their actions to previous generations’ social activism. Other still images from the publicly available documents of the Board of Trustees as they decided to divest from fossil fuels visually marked their actions. The data I chose to illustrate as a still image was gathered by the New England Pension Consultants (NEPC) LLC. The NEPC concluded that there is a relatively small and manageable exposure to fossil fuels within the overall portfolio—Managed Investment Pool (MIP) (~6.5%), Operating Fund (~3.5%), and Pension Fund (~5.3%). These findings were nonetheless shocking, and it was more than enough to prove that Divest UMS had a rightful cause to fight for.\(^\text{46}\) I also decided to include still images from a world map I ordered to support my presentation at the Center for Undergraduate Research (CUGR) Annual Student Symposium, for it illustrated where exactly fossil fuel divestment movements had occurred in the United States and Europe. Lastly, I included B-roll from the Nine Dragons Paper Old Town Mill on April 14, 2023, to illustrate an immediate example of the fossil fuel industry.

As concluded by Murch: “Film editing is now something almost everyone can do at a simple level and enjoy it, but to take it to a higher level requires the same dedication and persistence that any art form does.”\(^\text{47}\) This quote emphasizes the importance of practice and dedication in mastering the art of film editing, and it resonated deeply with me after engaging in post-production.

Editing helped me form a starting point for my narration, the process which will be discussed in the following section on sound design. Using sticky-notes to organize my

---


thoughts was more effective than relying solely on the storyboard that I drafted during the pre-production stage. Personally, the editing process was the most intriguing part of the post-production stage, because it is here where much of the process of discovery took place. However, it was also where much of my attention-to-detail and creative problem-solving skills became useful. I would describe the editing process as solving a “digital puzzle.” It is either something people truly enjoy, or something people truly despise. It is tedious work, but very rewarding to see the storyline unfold and come to life.

Sound design, another important process of post-production, follows as the subsequent step to editing, typically contributing to the film’s effectiveness as significantly as the visual qualities do. In my case, it involved the design of sound and narration. Murch even stated that sound design, as an essential process of post-production, should be given equal attention to the visual aspects. One notable instance in which I engaged with sound design was when I had interviewed Tamra Benson, I noticed that her voice was slightly distorted and echoed due to the location in which I was shooting the interview. This room had created an echo due to it being completely empty during the renovations of the Colvin Hall, the central building for the Honors College at the University of Maine, so I had to minimize the echo in post-production with digital filtering. In addition to this specific case, I had to adjust the sound levels of each interview to create consistency throughout the documentary short film, because sound running too loud or too quiet would break the flow of the narrative.

In the post-production stage, I was able to finalize my narration and record it in an audio studio. The microphone I used for this narration was a Shure SM7B, the go-to dynamic cardioid studio mic for broadcasters, vocalists, podcasters, instruments and more.
because of its smooth, flat, wide-range frequency response. The SM7B features excellent broadband interference shielding against electromagnetic hum generated by computer monitors, neon lights, and other electrical devices. The mic's specially engineered dynamic capsule provides a smooth, polished vocal sound with a rich response in the lower frequency registers, in a cardioid polar pattern, with bass roll-off and midrange emphasis (presence boost) controls. An internal air suspension shock isolation helps to eliminate mechanical noise transmission, and a yoke mount facilitates mounting and provides precise control of the mic position. This microphone was connected to a Zoom F6 6-Input 14-Track Multitrack Field Recorder. Editing the narration, I used Adobe Audition, an industry standard audio editing software.

The narration had been developed in-part with the storyboard during the pre-production stage, but it truly came to life after the editing process. Once I had a cohesive visual narrative, I could more clearly decide how I wanted my words and narration to drive the visual aspects of the documentary short film. The narration was dictated by the subject matter and my intention to promote fossil fuel divestment as a broader movement, but it was the process that took place in post-production that ultimately shaped it. This was another exciting process for me as it truly brought all the elements of the documentary together and it made it a cohesive piece of visual storytelling.

In addition to the production stage with camera and microphone operation, as well as lighting techniques, the post-production stage places equal emphasis on cinematography through its involvement with color correction and grading, which is a

48 Shure SM7B Vocal Microphone
49 Zoom F6-6 Input 14-Track Multitrack Field Recorder
process that I engaged with through using the software DaVinci Resolve. DaVinci Resolve is an industry standard video editing software that focuses on color correction and grading, visual effects, audio, and video production.

Color correction and grading entails adjusting the color and lighting of the raw footage to create a cohesive visual aesthetic, color palette, and style throughout the film. This process was another exciting process for me, as it required a great deal of attention to detail, sensitivity to color and light, as well as a great deal of finesse and subtlety in its approach. In dealing with the raw footage of interviews, I did not want to add color correction and grading that was far too aggressive, nor did I want to be too conservative. In other words, I did not want to exaggerate the use of color correction and grading. My objective in this process was to achieve consistency by using a subtle and warm tone. I did not want to add any distinctive features such as filters, but I wanted there to be a consistent level of high quality, bright light, soft and warm colors present throughout the documentary short film. I wanted to decrease the number of intense colors that were present on screen such as any bright reds, oranges, yellows, etc. However, I also wanted to increase the brightness, the sharpness, and adjust the tint so that the colors would appear to be softer and warmer, thus allowing the footage of interviews to go nicely with the B-roll that was taken during bright and sunny days in the summer and fall. Adjusting the various settings to my liking was important as a final step in the editing of the raw footage of the documentary short film. Additionally, implementing color correction and grading to the raw footage of the documentary was necessary to construct continuity and an even more cohesive visual narrative.
Mastering and compressing was a rather quick process in my experience, as it only required me to review my audio and video to decide on any final technical corrections. In the case of audio, I equalized the audio levels, made sure of its consistency all throughout the film, and made sure to finalize it in its highest quality version. In the case of video, I made sure to rewatch the video several times, note any errors and make any necessary corrections, then I made sure to finalize it in its highest quality version. Lastly, I exported the documentary short film as an accessible storage file, an .mp4, and made sure it was exported in its highest quality version. Then, I compressed the .mp4 file to reduce the amount of data used to encode the documentary short film. These steps, all accomplished through Adobe Media Encoder, were key to the overall process of distribution and promotion.

The distribution and promotion of the documentary short film was the last step involved in the post-production stage. This process involved distributing and promoting the documentary short film through my social networks, my academic and professional networks, and my portfolio, as well as listing it on my curriculum vitae. Since this documentary also seeks to amplify the mission of UMCA, this process also involved distributing and promoting it to UMCA and other local organizations that advocate for important causes in Maine. Finally, this process involved distributing and promoting the documentary short film to film festivals in Maine, many of which are centered around subject matters directly related to important causes in Maine and social documentaries like my own, Climate Action at the University of Maine. I also relied on the website software known as Cargo Collective, a professional site building platform for designers and artists, to distribute and promote the documentary short film.
CHAPTER FOUR

CRITICAL ANALYSIS

Within the broader context of exploring human dimensions of climate change, advocating for important causes related to climate change in Maine, focusing on fossil fuel divestment as a climate action-based solution, and amplifying the mission of “University of Maine Climate Action” (UMCA), this documentary film is important to the field of economic sustainability. Moreover, it will be considered a valuable resource to this field of study because it will be used as a catalyst for change to further climate action through fossil fuel divestment, a practice that supports long-term economic growth without negatively impacting the local and global community.

Economic sustainability is a field that explores the empirical foundation of the global sustainability crisis, examines, and measures the different perspectives and strategies that have been implemented to resolve certain sustainability challenges over time. It provides a theoretical framework to understand the disequilibrium between living populations and the environmental resources they depend on. Fossil fuel divestment is one of the many topics of discussion that stem from the global sustainability crisis. However, the aspect that makes discussion about fossil fuel divestment stand out is the fact that it provides a market-oriented solution to the global sustainability crisis. Fossil fuel divestment is the fastest growing divestment movement in history. Thousands of institutions around the world representing trillions of dollars in assets are committed to
fossil fuel divestment. Fossil fuel divestment campaigns at colleges and universities
around the world, driven by student activism, have been leading this historic movement.50

Within the broader context of documentary filmmaking, this film engages with
ethical visual storytelling and qualitative research methods while also adhering to the
traditional framework of documentary filmmaking, covered in the previous chapter, of
pre-production, production, post-production. In Theorizing Documentary, Michael Renov
offers a critical analysis of documentary filmmaking, highlighting its complex
relationship to reality and representation. Renov’s critical analysis directly relates to my
own experience as a writer and director of a documentary short film. Renov argues that
documentaries are not always objective representations of reality but are often
constructed through a particular perspective and are influenced by various cultural,
political, and social factors. As stated by Renov: “The documentary is not a reflection of
reality but a production of it.”51

Documentaries are often used to educate and inform audiences, but through
writing and directing this documentary short film, Climate Action at the University of
Maine, I have become more interested in how documentaries can be used to build
understanding, awareness, empathy, and momentum for change. In our current age, we
are faced with various pressing issues, which documentaries are increasingly being used
to address as catalysts for change by exploring human dimensions and experiences,
analyzing, and humanizing complex issues, amplifying the mission of organizations and

50 Cleveland Cutler, & Richard Reibstein, The Path to Fossil Fuel Divestment for Universities: Climate
51 Michael Renov, Theorizing Documentary, Routledge: Taylor & Francis Group: American Film Institute
(AFI) Film Readers (1993), ISBN: 9780415903820
individuals dedicated to positive change, advocating for important causes, and underrepresented or marginalized voices, and inspiring and instilling hope among audiences.\textsuperscript{52}

Renov also explores the ways in which documentaries can be used as tools for social and political activism by raising awareness of social injustices, challenging dominant ideologies, and promoting social change. At the same time, he acknowledges the limitations of documentary filmmaking as a means of social transformation and cautions against expecting too much from the medium. As stated by Renov: “The documentary filmmaker . . . must confront the limitations of the medium even as she aspires to use it to effect social change.”\textsuperscript{53} This quote acknowledges the limitations of documentary filmmaking as a tool for social transformation while also recognizing its potential for raising awareness of social injustices and promoting social change.

Nevertheless, documentaries engage with research, because they offer researchers the opportunity to explore human dimensions and experiences, analyze and humanize complex issues, amplify the mission of organizations and individuals dedicated to positive change, advocate for important causes and underrepresented or marginalized voices, and inspire and instill hope among audiences.\textsuperscript{54} Documentaries are compelling to audiences, and so can engage participants collaboratively as co-creators of knowledge rather than just serving as subjects. As audience inclusive projects, documentary

\begin{itemize}
\item \textsuperscript{52} Julie Tumaz, *International Documentaries in Global Development: Outreach, Measuring Impact and Engagement*, Prospercis (2017), www.csisprosper.com
\end{itemize}
films should be perceived as an alternate form of research that still engages with qualitative research methods but has a much wider reach beyond the boundaries of academia.  

Documentaries have long been recognized as important sources of information and insight into a wide range of complex issues, and they require a research process that must ensure credibility, transferability, dependability, and confirmability. While they are often viewed as a traditional creative practice, documentaries also have a rich tradition of using qualitative research methods to explore complex issues. Peer-reviewed journal articles have even recognized documentary filmmaking as an academic research method, in which qualitative research methods are presented through visual storytelling.

Engaging with qualitative research methods is at the center of the fundamental knowledge, skill set, and expertise of a documentarian and visual storyteller. Through the implementation of qualitative research methods, documentary filmmakers bring their subjects to life responsibly and give them depth.

Qualitative research involves the collection of data through interviews with key stakeholders directly impacted by the issue at hand. There are many similarities that can be drawn between qualitative research methods and documentary filmmaking. Both approaches begin with a research question or questions surrounding a given subject matter. Both approaches use data collection through site selection, participant selection, interviews, participant observation, and ethnography. Both approaches also engage with

---

55 Documentary Filmmaking as a Research Method, San José State University (2023), www.sjsu.edu
57 Documentary Filmmaking as a Research Method, San José State University (2023), www.sjsu.edu
data analysis. Finally, both approaches rely on ethical considerations to ensure the integrity of the documentary as well as the participants is an integral part of both qualitative research methods and documentary filmmaking.\textsuperscript{58}

One of the key themes in Renov’s analysis is the challenge of balancing the ethical considerations of documentary filmmaking with the need to tell compelling and engaging stories. He notes that documentary filmmakers must navigate complex ethical dilemmas when dealing with sensitive subjects, such as human rights abuses or environmental disasters: “The ethical issues at the heart of documentary practice . . . are not resolved by ideological or stylistic choices but are inherent in the representation of human life.”\textsuperscript{59} This quote highlights the challenges that documentary filmmakers face in dealing with sensitive subjects and the ethical dilemmas that arise when representing real-life events and people on screen. Another important aspect of Renov’s critical analysis is his exploration of different modes of documentary filmmaking, including observational, participatory, and reflexive modes. He highlights the unique challenges and ethical considerations that arise in each approach and offers insights into how documentary filmmakers can navigate these challenges.

One of the ways in which documentaries engage with qualitative research methods is through data collection, more specifically, site selection, participant selection, and interviews with key stakeholders directly impacted by the issue at hand. By capturing the subjective experiences, perspectives, and understandings of those being interviewed, the subject matter of a documentary can take its form. After all, conducting interviews are

\textsuperscript{58} Ibid.
the most obvious and important aspect to consider when understanding how documentaries engage with qualitative research methods. Interviews serve as the foundation for the visual storytelling and serve as the primary source of information and insights into the issue at hand.60

Another way in which documentaries engage with qualitative research methods and data collection is through participant observation and ethnography. By observing stakeholders, documentary filmmakers can gain a deeper understanding of the complex issues they are exploring. Observation can involve a variety of actions, such as observing the ways in which people interact with one another, or the ways in which people engage with the environment, or the ways in which they experience the effects of larger systemic issues. Through participant observation, documentaries can provide a rich and nuanced portrait of the world and to bring attention to and humanize the lived experiences of its participants, stakeholders, and subjects. Ethnography involves the study of cultural groups and their practices, beliefs, and values. This method is often used in documentaries to explore the experiences and perspectives of communities and to gain a deeper understanding of the cultural context in which issues are taking place.61

Beyond site selection, participant selection, interviews, and undertaking participant observation and ethnography, data collection also requires paying close attention to journalism and interview techniques, as well as narrative storytelling. Most importantly, it requires camera operation, lighting techniques, and audio production, all

60 Documentary Filmmaking as a Research Method, San José State University (2023), www.sjsu.edu
of which are valid qualitative research methods that are discussed in-depth in the production subsection of the methodology above, which focuses on the traditional framework of documentary filmmaking.

Documentaries also engage with one other qualitative research method: data analysis. Once the data collection stage is complete, the raw footage is analyzed through the video and audio editing processes. The data collection for documentaries involves large volumes of rich verbal and visual data, and it provides researchers with an opportunity to view the visuals multiple times, so that they can verify and clarify findings further, and create a repository for later usages. This trove allows the researcher to undergo creative discovery, in which decisions about which raw footage will be included or excluded is informed by the researcher’s aesthetic sensibilities as well as the need to deliver an authentic story. Overall, the data analysis of the visual data is driven by the initial research question or research questions. The themes that emerge from the data analysis drive the selection and organization of the raw footage.

Documentaries engage with ethical visual storytelling and qualitative research methods while also adhering to the traditional framework of documentary filmmaking which is important to consider because it provides a structured approach to the process well-grounded in the cultural traditions of the medium to help ensure its overall likelihood of success. My approach to creating this documentary short film was to follow the traditional framework of documentary filmmaking that generally involves three key steps: pre-production, production, and post-production. All of which are discussed in-depth in their respective subsections of the methodology which focuses on the traditional framework of documentary filmmaking.
In addition to these steps, another important step of the traditional framework of documentary filmmaking is the distribution and promotion of the documentary, which can include various venues, such as social networks, academic and professional networks, public commercial release, and public libraries. It can also include distributing and promoting it to receptive audiences, as in my case, local organizations including UMCA and others that advocate for important causes in Maine. Finally, it can also include distributing and promoting the documentary short film to film festivals in Maine, many of which are centered around subject matters directly related to important causes in Maine and social documentaries like my own, *Climate Action at the University of Maine*. The evaluation of and reflection on the documentary is the final step, which involves evaluating the success of the documentary and reflecting on the process, including what worked well and what could be improved for future projects. With that being said, the conclusion chapter below will serve the purpose of summarizing the points related to the distribution and promotion of the documentary, as well as the points related to the evaluation of and reflection on the documentary.
CHAPTER FIVE

CONCLUSION

Evaluation and reflection, the final step in the methodology, involves evaluating the success of the film and reflecting on the process, including what worked well and what could be improved for future projects—This conclusion serves the purpose of summarizing these points. During each stage of the traditional framework of documentary filmmaking, I have encountered various challenges.

As noted in the third chapter, pre-production is the stage that involves (1) determining the subject matter and interviewees, (2) production design, (3) storyboarding, (4) acquiring the necessary equipment and financial support, (5) assembling a “crew.” The skills I honed included (1) academic and qualitative research, (2) conceptualization and storytelling, (3) networking and leadership.

Pre-production can be a challenging stage for a variety of reasons. In retrospect, I would say that the conceptualization and storytelling skills that I had to develop were most challenging. Drafting the storyboard, the potential interview questions, and the potential narrative were all part of this challenging process. I had to imagine what the film would appear to be before even capturing and editing the footage yet remain sensitive to how the ensuing filmmaking processes would give me new insights into my materials as it all evolved. Essentially, I had to define the subject matter, then proceed to define the core themes, the core questions, and the core aesthetics of the documentary short film. This conceptualization was a process I had never encountered before, and one
that forced me to think deeply about my subject matter and my objectives as a filmmaker to achieve a satisfactory final product.

For next time, I would say that drafting a more well-developed and detailed storyboard would serve me better in production and post-production. At first, I had developed a draft of a storyboard that outlined the interview questions, the themes I was aiming to develop in the film, the B-roll I had captured, and the interviews themselves. It was not as structured or as detailed as it could have been. Essentially, I knew the basis of the storyline, but I did not anticipate that I would have to develop the storyline in greater detail once all the raw footage had been gathered in production and once, I had finally sat down to edit all the raw footage in post-production. I effectively captured hours and hours of raw footage, then based on the initial storyboard I had drafted, I had to go through hours and hours of raw footage and select all the talking points that fit the main themes I was aiming to develop, and then proceed from there to find out exactly in what order each clip of raw footage had to go. It was a demanding task, but the time that it took to do such a task could have been minimized with a more structured and detailed storyboard. In summary, having a greater understanding and anticipation of the storyline would have served me better in production and post-production.

Production is the stage that involves (1) camera operation; (2) audio operation; (3) lighting techniques; (4) cinematography; (5) journalism and interview techniques. The hardware I used included (1) Canon EOS RP Mirrorless Camera; (2) RØDE VideoMic On-Camera Shotgun Microphone; (3) Savage Luminous Pro Bi-Color LED Ring Light.

Production can be a challenging stage for a variety of reasons. In retrospect, I would say that teaching myself the hardware skills of camera operation, audio operation,
and lighting techniques were the most challenging aspects of this stage. Learning the hardware skills required of this documentary short film was a demanding task, but nonetheless rewarding in terms of the knowledge and expertise I gained as a filmmaker. For next time, I would say that paying more close attention to the framing of the camera, the audio, and the lighting would all increase the overall quality and delivery of the documentary short film.

For instance, in Ryan O’Leary’s interview, the camera frame is positioned so that it makes him appear on the left side of the frame and facing toward the audience, while the right side is completely empty. Although this camera frame complies with the “rule of thirds,” it leads the audience to wonder what has his attention beyond the left frame. It would have been more effective if O’Leary had been positioned on the right side of the frame and facing the audience, since his body is open, and his gaze is almost facing the camera directly. This framing would have made it seem as if he was more connected to the audience, thus, making his interview and delivery more effective. However, it turned out that O’Leary was positioned on the left side of the frame and facing towards the audience, thus making his body more closed and his gaze rather distant from the camera lens. This poor camera framing technique resulted in an overuse of negative space, and the delivery of a tense tone to this part of the documentary short film since he is positioned too close to the frame.

Regarding paying more close attention to the audio operation, I would say that Tamra Benson’s interview is the clearest example of poor audio operation in this documentary short film. In this interview, I had found an excellent location to capture Tamra with the light at a perfect angle and with an elegant bookcase behind her that
matched her appearance. Most importantly, this location matched the tone and the aesthetic of the documentary short film, therefore, visually speaking, making it quite appropriate. However, as noted previously, the location, Colvin Hall, was under construction at the time, with the furniture removed which gave the room an echo. I did not anticipate it, nor did I notice it. However, a closer examination of the audio would have served me well. Not to mention, the microphone I used in this interview did not serve me well in spaces that were subject to echoes, since it does in fact react sensitively to echoes and empty spaces. Perhaps I had paid all my attention toward the visual aspect of this interview at the expense of the auditory aspect. Nevertheless, the echo made the interview stand out among the others, it made it seem less professional, and it made it difficult to edit in post-production. The slight disruptions of the echo and the slight movements any of us made were all unfortunately captured by the microphone.

Regarding paying more close attention to the lighting technique, I would say that the Director of the Wilson Center Sonja Birthisels interview was the interview that suffered from the poorest lighting technique. At this point in the production of my film, I did not have access to any lighting equipment, therefore, the outcome would have been more desirable if that were not the case. Nevertheless, I had to adapt with the poor natural lighting and artificial lighting of the location, the Wilson Center, and utilize a lamp to generate lighter than what I had available. The lamp created an uncomfortable setting for the interview, with chords everywhere and lights in uncomfortable positions. It was quite a challenge to overcome, but the content provided by Birthisels made up for the inefficient lighting techniques. In addition, the lighting created a shadow on her body and face, and I had to adjust the camera frame in post-production to crop the shadow on her body to
focus more on her face. Although her face did appear to have some degree of shadow, I was able to minimize it in post-production through color correcting and grading, as well as through brightness, contrast, and exposure adjustments.

Post-production is the stage that involves (1) editing a rough cut and a final cut, (2) sound design, (3) color correction and grading, (4) mastering and compressing, (5) distribution and promotion through the various software noted in the third chapter. Post-production can be a challenging stage for a variety of reasons. In retrospect, I would say that teaching myself the software skills of Adobe Premiere Pro, Adobe After Effects, Adobe Audition, Adobe Media Encoder, DaVinci Resolve, and Cargo Collective were the most challenging aspects of this stage. The wide range of technical skills required during post-production are challenging factors to consider. Considering my intermediate level of proficiency in industry-standard audio and video editing software, I had to learn from experts and experiment on my own, but for the most part, I managed to successfully apply my technical skills to achieve my desired outcome.

Post-production can be a challenging stage for several additional reasons. For one, time constraints and tight deadlines made it so that my workflow had to be structured and efficient. To maintain crucial aesthetic consistency, I was tasked with maintaining continuity throughout the film, which was challenging, since the raw footage was shot over a long period of time and in different locations. The costs of post-production are other important challenges to consider since post-production requires industry-standard audio and video editing software. Finally, finding the financial support required additional commitments, such as academic and qualitative research, funding proposals, additional presentations, and even tighter time constraints and deadlines.
Since there are many moving pieces in all stages of the traditional framework of documentary filmmaking, at times, it can be difficult to manage. However, the smaller the production, the easier it is to manage all the logistics. Through writing and directing this documentary short film I was able to improve upon my leadership skills. From mobilizing a thesis committee over the course of an entire year, to meeting with each committee member individually and absorbing their knowledge and expertise, to engaging in professional fieldwork, to presenting at the Center for Undergraduate Research (CUGR) Annual Student Symposium, to defending my Honors Thesis, I learned a range of leadership skills. Essentially, I took full advantage of this opportunity to become a better leader.

In writing and directing a documentary short film for my honors thesis on climate action at the University of Maine, I have discovered how visual storytelling could be used as a catalyst for change. Apart from being used to educate and inform audiences, documentaries can be used to build understanding, awareness, empathy, and momentum for change. In our modern age, we are faced with various pressing issues, and documentaries are increasingly being used as catalysts for change. By exploring human dimensions and experiences, by analyzing and humanizing complex issues, by amplifying the mission of organizations and individuals dedicated to positive change, by advocating for important causes and underrepresented or marginalized voices, and by inspiring and instilling hope among audiences, documentaries can be used as catalysts for change.
BIBLIOGRAPHY


*University of Maine System Board of Trustees Meeting: July 11, 2022*. University of Maine System Board of Trustees. YouTube. www.youtube.com/watch?v=zi6RjwuaauA&t=1499s.
APPENDIX A: LITERATURE REVIEW FIGURES

University of Maine System Fossil Fuel Exposure in the Managed Investment Pool

<table>
<thead>
<tr>
<th>Manager</th>
<th>Manager % of Portfolio</th>
<th>Asset Class</th>
<th>Vehicle Type</th>
<th>Estimated Fossil Fuel and/or Energy Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSGA</td>
<td>16.9%</td>
<td>Large Cap Equity</td>
<td>Commingled Fund</td>
<td>7.0%</td>
</tr>
<tr>
<td>Westfield*</td>
<td>3.1%</td>
<td>Small Cap Growth Equity</td>
<td>Commingled Fund</td>
<td>7.4%</td>
</tr>
<tr>
<td>DFA*</td>
<td>3.2%</td>
<td>Small Cap Value Equity</td>
<td>Mutual Fund</td>
<td>5.5%</td>
</tr>
<tr>
<td>Morgan Stanley</td>
<td>7.9%</td>
<td>International Developed Equity</td>
<td>Mutual Fund</td>
<td>8.3%</td>
</tr>
<tr>
<td>Globeffex</td>
<td>8.3%</td>
<td>International Developed Equity</td>
<td>Commingled Fund</td>
<td>12.5%</td>
</tr>
<tr>
<td>Aberdeen</td>
<td>6.8%</td>
<td>Emerging Market Equity</td>
<td>Mutual Fund</td>
<td>12.9%</td>
</tr>
<tr>
<td>Cormorant*</td>
<td>9.5%</td>
<td>Core Fixed Income</td>
<td>Commingled Fund</td>
<td>3.0%</td>
</tr>
<tr>
<td>Loam*</td>
<td>4.8%</td>
<td>High Yield Fixed Income</td>
<td>Commingled Fund</td>
<td>8.0%</td>
</tr>
<tr>
<td>GMO</td>
<td>8.3%</td>
<td>GAA</td>
<td>Commingled Fund</td>
<td>8.7%</td>
</tr>
<tr>
<td>Wellington</td>
<td>8.4%</td>
<td>GAA</td>
<td>Commingled Fund</td>
<td>0.9%</td>
</tr>
<tr>
<td>PIMCO</td>
<td>7.9%</td>
<td>GAA</td>
<td>Mutual Fund</td>
<td>8.1%</td>
</tr>
<tr>
<td>Permal*</td>
<td>5.6%</td>
<td>Hedge Fund</td>
<td>Limited Partnership</td>
<td>3.2%</td>
</tr>
<tr>
<td>Cube*</td>
<td>5.5%</td>
<td>Hedge Fund</td>
<td>Commingled Fund</td>
<td>0.9%</td>
</tr>
<tr>
<td>Blenheim</td>
<td>1.5%</td>
<td>Hedge Fund</td>
<td>Limited Partnership</td>
<td>1.0%</td>
</tr>
<tr>
<td>John Hancock</td>
<td>7.0%</td>
<td>Timber</td>
<td>Limited Partnership</td>
<td>0.0%</td>
</tr>
<tr>
<td>Estimated Total Plan Exposure</td>
<td></td>
<td></td>
<td></td>
<td>6.5%</td>
</tr>
</tbody>
</table>

University of Maine System Fossil Fuel Exposure in the Pension Fund

<table>
<thead>
<tr>
<th>Manager</th>
<th>Manager % of Portfolio</th>
<th>Asset Class</th>
<th>Vehicle Type</th>
<th>Estimated Fossil Fuel and/or Energy Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vanguard</td>
<td>14.6%</td>
<td>Large Cap Equity Index</td>
<td>Mutual Fund</td>
<td>10.1%</td>
</tr>
<tr>
<td>SSGA</td>
<td>4.6%</td>
<td>Small Cap Equity</td>
<td>Commingled Fund</td>
<td>0.7%</td>
</tr>
<tr>
<td>Morgan Stanley</td>
<td>13.9%</td>
<td>International Developed Equity</td>
<td>Mutual Fund</td>
<td>8.3%</td>
</tr>
<tr>
<td>Aberdeen</td>
<td>6.9%</td>
<td>Emerging Market Equity</td>
<td>Mutual Fund</td>
<td>12.9%</td>
</tr>
<tr>
<td>PIMCO Total Return</td>
<td>13.5%</td>
<td>Core Fixed Income</td>
<td>Mutual Fund</td>
<td>0.0%</td>
</tr>
<tr>
<td>Loam*</td>
<td>4.9%</td>
<td>High Yield Fixed Income</td>
<td>Commingled Fund</td>
<td>8.0%</td>
</tr>
<tr>
<td>PIMCO All Asset</td>
<td>12.5%</td>
<td>GAA</td>
<td>Mutual Fund</td>
<td>6.1%</td>
</tr>
<tr>
<td>Wellington</td>
<td>13.0%</td>
<td>GAA</td>
<td>Commingled Fund</td>
<td>1.0%</td>
</tr>
<tr>
<td>Permal*</td>
<td>4.1%</td>
<td>Hedge Fund</td>
<td>Limited Partnership</td>
<td>3.2%</td>
</tr>
<tr>
<td>Cube*</td>
<td>4.3%</td>
<td>Hedge Fund</td>
<td>Commingled Fund</td>
<td>0.9%</td>
</tr>
<tr>
<td>Blenheim</td>
<td>2.0%</td>
<td>Hedge Fund</td>
<td>Limited Partnership</td>
<td>1.0%</td>
</tr>
<tr>
<td>Principal</td>
<td>4.8%</td>
<td>Real Estate</td>
<td>Limited Partnership</td>
<td>0.7%</td>
</tr>
<tr>
<td>Estimated Total Plan Exposure</td>
<td></td>
<td></td>
<td></td>
<td>5.3%</td>
</tr>
</tbody>
</table>

University of Maine System Fossil Fuel Exposure as of 2014 in the Operating Fund

<table>
<thead>
<tr>
<th>Manager</th>
<th>Manager % of Portfolio</th>
<th>Asset Class</th>
<th>Vehicle Type</th>
<th>Estimated Fossil Fuel and/or Energy Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Pool</td>
<td>5.4%</td>
<td>Cash</td>
<td>Commingled Fund</td>
<td>0.0%</td>
</tr>
<tr>
<td>Dreyfus</td>
<td>5.9%</td>
<td>Cash</td>
<td>Mutual Fund</td>
<td>0.0%</td>
</tr>
<tr>
<td>Bank of America</td>
<td>0.0%</td>
<td>Cash</td>
<td>Checking Account</td>
<td>0.0%</td>
</tr>
<tr>
<td>Federated</td>
<td>4.9%</td>
<td>Cash</td>
<td>Mutual Fund</td>
<td>0.0%</td>
</tr>
<tr>
<td>ISEI</td>
<td>28.7%</td>
<td>Short Term Bond</td>
<td>Separate Account</td>
<td>1.7%</td>
</tr>
<tr>
<td>PIMCO Floating Income</td>
<td>9.6%</td>
<td>Diversified Bond</td>
<td>Mutual Fund</td>
<td>12.1%</td>
</tr>
<tr>
<td>Loam*</td>
<td>8.3%</td>
<td>Bank Loans</td>
<td>Commingled Fund</td>
<td>4.7%</td>
</tr>
<tr>
<td>Vanguard Total Bond*</td>
<td>8.6%</td>
<td>Core Fixed Income</td>
<td>Mutual Fund</td>
<td>1.8%</td>
</tr>
<tr>
<td>Cube*</td>
<td>4.5%</td>
<td>Hedge Fund</td>
<td>Commingled Fund</td>
<td>0.9%</td>
</tr>
<tr>
<td>Permal*</td>
<td>3.3%</td>
<td>Hedge Fund</td>
<td>Limited Partnership</td>
<td>3.2%</td>
</tr>
<tr>
<td>Windhaven</td>
<td>7.0%</td>
<td>GAA</td>
<td>Separate Account</td>
<td>1.5%</td>
</tr>
<tr>
<td>PIMCO All Asset</td>
<td>8.2%</td>
<td>GAA</td>
<td>Mutual Fund</td>
<td>8.1%</td>
</tr>
<tr>
<td>Vanguard Total World*</td>
<td>5.5%</td>
<td>Large Cap Equity</td>
<td>Mutual Fund</td>
<td>8.7%</td>
</tr>
<tr>
<td>Estimated Total Plan Exposure</td>
<td></td>
<td></td>
<td></td>
<td>3.5%</td>
</tr>
</tbody>
</table>
Macroeconomic Assessment of Fossil Fuel Divestment

APPENDIX B: INTERVIEW QUESTIONS

- What is your full name?
- What is your official title and leadership role?
- What is student activism? Why is it important?
- What is climate action? Why is it important?
- What is fossil fuel divestment? Why is it important?
- What is climate justice? Why is it important?
- What is the history of the fossil fuel divestment movement?
- How does fossil fuel divestment work?
- What role do student activists play in the fossil fuel divestment movement?
- What is the history of Divest UMS?
- How was Divest UMS founded?
- Where did the founding members of Divest UMS draw inspiration from?
- What is the mission of Divest UMS?
- What would you say was the turning point for Divest UMS, in other words, was there that moment where it felt like there was no turning back?
- In the midst of all the efforts set forth by Divest UMS, what were some challenges and setbacks you faced as a student organization?
- How did you overcome difficulties as a student organization?
- What is so difficult about fossil fuel divestment? Even though fossil fuel divestment is the right thing to do, what was impeding the Board of Trustees from making any progress?
• When were you struggling to get on the same page, or felt like you were stalling to reach an agreement with the Board of Trustees?

• What moment in time would you say that you were on the same page with the Board of Trustees?

• When did you start to realize things might work out? When were things starting to go your way?

• What have been some of the challenges and setbacks that you have faced as a student organization?

• What are some key events that you have planned as a student organization?

• How has Divest UMS impacted climate justice at a local level?

• How will Divest UMS continue to strive for climate justice?

• What does the future of this student organization look like?

• How would you highlight your success as a student organization?

• In what ways have you contributed to Divest UMS?

• Why did you become involved with Divest UMS?

• Would you say that you have enjoyed working with Divest UMS in the past?

• What is so unique about Divest UMS?

• What are some environmental based solutions you hope to focus on, as a local politician or community leader?

• In what ways has the environment been threatened or negatively impacted at a local level?

• Is fossil fuel divestment important to talk about?

• What do you see being done about this issue?
• What can students do to fight for a rightful cause?
• What power do students have?
• Why is service work towards the community important to you?
• What core values have driven your career trajectory?
• What is your role within the organization?
• How valuable has Divest UMS been to the community?
• What service and leadership has been demonstrated by the group in past years?
• Why do you think a lot of students are invested in this student organization?
• Are there any shared core values between members?
• What strategies have you implemented to plan climate strikes?
• Could you please talk about the different objectives of attending and speaking at Board of Trustees meetings?
• Now that the University of Maine System has committed to fossil fuel divestment, how will it impact Divest UMS?
• Does that change your mission in any way?
• Would you say that your leadership role in this student organization has helped you develop as a professional?
• Where do you see yourself after graduation?
• Do you hope to continue to raise awareness about climate justice?
• Why did the Board of Trustees finally decide to divest from fossil fuels?
• What motivated them to make this decision?
## APPENDIX C: STORYBOARD

<table>
<thead>
<tr>
<th>Visual</th>
<th>Audio</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>B-roll</strong> — Stillwater River</td>
<td>Nature Sound</td>
</tr>
<tr>
<td>Text — “Created in Collaboration With”</td>
<td></td>
</tr>
<tr>
<td>Logo — University of Maine</td>
<td></td>
</tr>
<tr>
<td><strong>B-roll</strong> — Stillwater River</td>
<td>Nature Sound</td>
</tr>
<tr>
<td>Text — “Created in Collaboration With”</td>
<td></td>
</tr>
<tr>
<td>Logo — Center for Undergraduate Research (CUGR)</td>
<td></td>
</tr>
<tr>
<td><strong>B-roll</strong> — Stillwater River</td>
<td>Nature Sound</td>
</tr>
<tr>
<td>Text — “Climate Action at the University of Maine;” “A Documentary Short Film”</td>
<td></td>
</tr>
<tr>
<td><strong>B-roll</strong> — UMCA Climate Strike 09/23/22</td>
<td>Cameron Nelson</td>
</tr>
<tr>
<td>Text — “Cameron Nelson;” “Student Activist”</td>
<td></td>
</tr>
<tr>
<td><strong>B-roll (Frame Hold)</strong> — UMCA Climate Strike 09/23/22</td>
<td>Narration (Written by Santiago Tijerina)</td>
</tr>
<tr>
<td><strong>B-roll</strong> — University of Maine Banner &amp; Leaves</td>
<td>Narration (Written by Santiago Tijerina)</td>
</tr>
<tr>
<td><strong>B-roll</strong> — UMCA Climate Strike 09/23/22</td>
<td>Narration (Written by Santiago Tijerina)</td>
</tr>
<tr>
<td><strong>Interview</strong> — Mike Tipping</td>
<td>Mike Tipping</td>
</tr>
<tr>
<td>Text — “Mike Tipping;” “Maine State Senator”</td>
<td></td>
</tr>
<tr>
<td><strong>Interview</strong> — Sonja Birthisel</td>
<td>Sonja Birthisel</td>
</tr>
<tr>
<td>Text — “Sonja Birthisel, Ph.D.;” “Director of the Wilson Center”</td>
<td></td>
</tr>
<tr>
<td><strong>Interview</strong> — Mike Tipping</td>
<td>Mike Tipping</td>
</tr>
<tr>
<td><strong>Interview</strong> — Mike Tipping</td>
<td>Mike Tipping</td>
</tr>
<tr>
<td><strong>Interview</strong> — Sonja Birthisel</td>
<td>Sonja Birthisel</td>
</tr>
<tr>
<td><strong>B-roll</strong> — UMCA Climate Strike 09/23/22</td>
<td>Mike Tipping</td>
</tr>
<tr>
<td><strong>B-roll</strong> — UMSBOT Meeting 07/11/22</td>
<td></td>
</tr>
<tr>
<td><strong>Interview</strong> — Mike Tipping</td>
<td>Mike Tipping</td>
</tr>
<tr>
<td><strong>Interview</strong> — Sonja Birthisel</td>
<td>Sonja Birthisel</td>
</tr>
<tr>
<td><strong>B-roll</strong> — UMCA Climate Strike 09/23/22</td>
<td>Student Activists</td>
</tr>
<tr>
<td><strong>B-roll</strong> — University of Maine Banner &amp; Columns</td>
<td>Narration (Written by Santiago Tijerina)</td>
</tr>
<tr>
<td>B-roll</td>
<td>Narration (Written by Santiago Tijerina)</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>------------------------------------------</td>
</tr>
<tr>
<td>Interview — Ryan O’Leary</td>
<td>Ryan O’Leary</td>
</tr>
<tr>
<td>Text — “Ryan O’Leary;” “Student Activist”</td>
<td></td>
</tr>
<tr>
<td>Still Image — UMCA Climate Strike B&amp;W</td>
<td>Ryan O’Leary</td>
</tr>
<tr>
<td>Interview — Ryan O’Leary</td>
<td>Ryan O’Leary</td>
</tr>
<tr>
<td>B-roll — Divest Harvard Student Activists</td>
<td>Ryan O’Leary</td>
</tr>
<tr>
<td>B-roll — Divest Harvard Climate Strike</td>
<td>Ryan O’Leary</td>
</tr>
<tr>
<td>Interview — Ryan O’Leary</td>
<td>Ryan O’Leary</td>
</tr>
<tr>
<td>B-roll — UMCA Climate Strike 09/23/22</td>
<td>Student Activists</td>
</tr>
<tr>
<td>Interview — Ryan O’Leary</td>
<td>Ryan O’Leary</td>
</tr>
<tr>
<td>B-roll — University of Maine Students &amp; Leaves</td>
<td>Narration (Written by Santiago Tijerina)</td>
</tr>
<tr>
<td>B-roll — Student Activists</td>
<td>Narration (Written by Santiago Tijerina)</td>
</tr>
<tr>
<td>B-roll — Alumni Hall &amp; Leaves</td>
<td>Narration (Written by Santiago Tijerina)</td>
</tr>
<tr>
<td>Interview — Tamra Benson</td>
<td>Tamra Benson</td>
</tr>
<tr>
<td>Text — “Tamra Benson;” “Student Activist”</td>
<td></td>
</tr>
<tr>
<td>Still Image — UMCA Climate Strike B&amp;W</td>
<td>Tamra Benson</td>
</tr>
<tr>
<td>Interview — Tamra Benson</td>
<td>Tamra Benson</td>
</tr>
<tr>
<td>B-roll — UMCA Climate Strike 09/23/22</td>
<td>Tamra Benson</td>
</tr>
<tr>
<td>Interview — Tamra Benson</td>
<td>Tamra Benson</td>
</tr>
<tr>
<td>B-roll — UMCA Climate Strike 09/23/22</td>
<td>Tamra Benson</td>
</tr>
<tr>
<td>Interview — Tamra Benson</td>
<td>Tamra Benson</td>
</tr>
<tr>
<td>B-roll — UMSBOT Meeting 07/11/22</td>
<td>Tamra Benson</td>
</tr>
<tr>
<td>Interview — Tamra Benson</td>
<td>Tamra Benson</td>
</tr>
<tr>
<td>B-roll — UMSBOT Meeting 07/11/22</td>
<td>UMSBOT</td>
</tr>
<tr>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>---------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>B-roll</td>
<td>UMSBOT Meeting 07/11/22</td>
</tr>
<tr>
<td>Still Image</td>
<td>UMCA Climate Strike B&amp;W</td>
</tr>
<tr>
<td>Still Image</td>
<td>UMCA Climate Strike B&amp;W</td>
</tr>
<tr>
<td>Still Image</td>
<td>UMCA Climate Strike B&amp;W</td>
</tr>
<tr>
<td>Still Image</td>
<td>UMCA Climate Strike B&amp;W</td>
</tr>
<tr>
<td>Still Image</td>
<td>UMCA Climate Strike B&amp;W</td>
</tr>
<tr>
<td>Still Image</td>
<td>UMCA Climate Strike B&amp;W</td>
</tr>
<tr>
<td>Still Image</td>
<td>UMCA Climate Strike B&amp;W</td>
</tr>
<tr>
<td>Interview</td>
<td>Ivan Fernandez</td>
</tr>
<tr>
<td>Text</td>
<td>“Ivan Fernandez, Ph.D.;” “Distinguished Maine Professor”</td>
</tr>
<tr>
<td>B-roll</td>
<td>Winslow Hall &amp; Leaves</td>
</tr>
<tr>
<td>B-roll</td>
<td>MLK JR Plaza</td>
</tr>
<tr>
<td>Interview</td>
<td>Ivan Fernandez</td>
</tr>
<tr>
<td>B-roll</td>
<td>UMCA Climate Strike 09/23/22</td>
</tr>
<tr>
<td>B-roll</td>
<td>UMSBOT Meeting 07/11/22</td>
</tr>
<tr>
<td>Interview</td>
<td>Ivan Fernandez</td>
</tr>
<tr>
<td>Still Image</td>
<td>NEPC LLC Data</td>
</tr>
<tr>
<td>Interview</td>
<td>Ivan Fernandez</td>
</tr>
<tr>
<td>Still Image</td>
<td>USA Map B&amp;W</td>
</tr>
<tr>
<td>Still Image</td>
<td>Western Europe Map B&amp;W</td>
</tr>
<tr>
<td>Interview</td>
<td>Ivan Fernandez</td>
</tr>
<tr>
<td>B-roll</td>
<td>ND Paper Old Town Mill 04/14/23</td>
</tr>
<tr>
<td>Interview</td>
<td>Mike Tipping</td>
</tr>
<tr>
<td>Text — “Mike Tipping;” “Maine State Senator”</td>
<td></td>
</tr>
</tbody>
</table>
| **Interview** — Sonja Birthisel  
**Text** — “Sonja Birthisel, Ph.D.;” “Director of the Wilson Center” | Sonja Birthisel |
| **Interview** — Ryan O’Leary  
**Text** — “Ryan O’Leary;” “Student Activist” | Ryan O’Leary |
| **B-roll** — UMCA Climate Strike 09/23/22 | Ryan O’Leary |
| **B-roll** — UMSBOT Meeting 07/11/22 | Ryan O’Leary |
| **Interview** — Ryan O’Leary | Ryan O’Leary |
| **B-roll** — University of Maine Campus & Leaves  
**Text** — “Written and Directed by;” “Santiago Tijerina” | Nature Sound |
| **B-roll** — University of Maine Campus & Leaves  
| **B-roll** — University of Maine Campus & Leaves  
| **Background** — White  
**Logo** — University of Maine  
**Logo** — Center for Undergraduate Research (CUGR) | White Noise |
| **Background** — White  
**Logo** — Honors College | White Noise |
Abstract

*Climate Action at the University of Maine* will be a documentary that focuses on informing the public about fossil fuel divestment within the University of Maine System, while also increasing the public’s awareness and support of fossil fuel divestment as a broader movement, thus promoting the overall objective of the organization, Divest UMS. This documentary will undertake and engage with qualitative research methods, scheduling and executing interviews, as well as, camera operation, lighting operation, audio mixing, and film editing. This documentary is intended to educate audiences by seeking to answer the following questions related to fossil fuel divestment: How have student activists played an instrumental role in fossil fuel divestment within the University of Maine System? What does fossil fuel divestment mean for the University of Maine System and members of the community? Finally, what voices will student activists have going forward with this process?

Project Description

Documentaries are often used to inform the public, moreover, they can be used to increase the public’s awareness of certain issues, motivate public involvement, and have a beneficial impact on an organization’s overall objective. Documentary filmmaking is a research process that must ensure credibility, transferability, dependability, and confirmability. Documentary filmmaking has been traditionally viewed as a creative practice, but peer-reviewed journal articles have recently recognized documentary
filmmaking as an academic research method. Most importantly, documentary filmmaking uses specific qualitative research methods presented in long-form storytelling. The general research objective of this documentary is to educate audiences on the economic and social implications of fossil fuel divestment by assessing how fossil fuel divestment and climate justice solutions have directly impacted members of the community.

This documentary will seek to assess the work of student activists, faculty, and staff affiliated with Divest UMS. In addition, this documentary will seek to assess the work of local community leaders pursuing climate justice based solutions. This documentary will also seek to verify the importance of fossil fuel divestment within the University of Maine System. This documentary will seek to explain the complexity of fossil fuel divestment within the University of Maine System’s Endowment Fund by asking interviewees thoughtful questions. To understand the complexity of fossil fuel divestment within the University of Maine System, I must conduct interviews. These interviewees will provide a great deal of information that will have to be simplified in order to articulate how an institution must go about divesting their assets including stocks, bonds, mutual funds, and other financial instruments connected to companies involved in the fossil fuel industry. In addition, I must conduct interviews that will provide an insight as to how fossil fuel divestment was enacted. Conducting interviews will require interviewing techniques, as well as camera operation, lighting operation, and audio mixing, all of which are valid research objectives. Location selection, participant selection, informed consent, and sharing results are also valid research objectives that stem from this particular documentary. Other research objectives include conducting academic research on the given topic.
This documentary is important to the field of economic sustainability. Moreover, it will be considered a valuable resource to this field of study because it will be used to educate audiences on a particular practice (fossil fuel divestment) that supports long-term economic growth without negatively impacting the local and global community. Economic sustainability is a field that explores the empirical foundation of the global sustainability crisis, examines and measures the different perspectives and strategies that have been implemented to resolve certain sustainability challenges over time. Economic sustainability provides a theoretical framework to understand the disequilibrium between living populations and the environmental resources they depend on. Fossil fuel divestment is one of the many topics of discussion that stem from the global sustainability crisis. However, the aspect that makes discussion about fossil fuel divestment stand out, is the fact that it provides a market-oriented solution to the global sustainability crisis. Fossil fuel divestment is the fastest growing divestment movement in history. Thousands of institutions around the world representing trillions of dollars in assets are committed to fossil fuel divestment. Interestingly enough, fossil fuel divestment campaigns at colleges and universities around the world, driven by student activism, have been leading this historic movement.

Researching the economic and social implications of fossil fuel divestment directly relates to what I have been studying for the last four years. Fossil fuel divestment and climate justice have both been valuable topics of discussion within a number of courses that I have taken. For instance, international political economy, international environmental economics and policy, sustainable development principles, and of course both macroeconomics and microeconomics. Officially, my field of study is International
Affairs with a Concentration in Economics. The time I have devoted to developing my understanding of macroeconomic trends, the various implications of the international political economy, and the pressing issues of today have undoubtedly shaped the way I view the world.

Although conducting traditional research can be impactful and informative, I want to dive deeper into how fossil fuel divestment directly impacts others and how climate justice could have a local impact by applying my skills in journalism that specialize in documentary filmmaking. The research methodology that is required from documentary filmmaking is what I believe to be most valuable. I view documentary filmmaking as a challenge that involves multiple aspects of qualitative research practices. The way I see it, directing and editing a documentary film is the most engaging process that allows me to share a compelling story. The visual medium that film possesses makes it possible to capture the attention of audiences; therefore, film is not only a tool of artistic self-expression, but a tool to raise awareness, and most importantly, to educate.

This documentary will be accomplished in three stages: pre-production, production, and post-production. As with most films, the general rule of thumb is to follow this three-step process in order to achieve the highest likelihood of success. With that being said, each stage is distinct from one another, but rather self-explanatory based on their titles. Pre-production, being the initial stage, is more concerned with organizational and outreach skills. On the other hand, the stage of production is more concerned with management and mobilization skills. Finally, post-production is more concerned with editing and execution skills. Adaptability and creativity are all necessary
skills that must be carried all throughout the three stages of documentary production to ensure the highest likelihood of success.

Pre-production is essentially the stage of organization which is concerned with all the necessary arrangements and preparations to begin filming. This includes the development of ideas for the film, storyboarding, and financing. Pre-production is also necessary to establish leadership roles within the film crew, and in my case, my building a team of committee members in addition to an advisor. Furthermore, pre-production will require location selection, participant selection, scheduling interviews, and informed consent.

The topic for this documentary was developed in consultation with my committee members in addition to my advisor. After developing a topic for this documentary, storyboarding would be the appropriate next step. A storyboard essentially look like a written version of the documentary that is structured in the format of a two-column script. The storyboard is split into two columns: the left column of the script will describe all the video the audience will see (b-roll, interviews, photos, diagrams, screen captures, etc.) and the right column will describe all the audio the audience will hear (interview bits, music, narration, sound effects, etc.). In summary, each row equals one scene in the documentary, with the audio playing over the video. The storyboard is also a working document that is aimed at predicting what my final cut will look like. In addition, I will focus on building a team of committee members spearheaded by an advisor to provide me with consultation, guidance and critique throughout the production and post-production stages.
Finally, as part of the pre-production stage, I plan to schedule tech scouts and select locations to film b-roll and interviews. Tech scouts will entail visiting a location with an intention to figure out the final details of filming at the space. I also plan to select participants, or rather, potential interviewees by first researching their backgrounds and then constructing talking points and refined interview questions tailored to their area of expertise. I will contact everyone I want to interview in advance, giving them as much notice as possible about my documentary and expressing my desire to interview them. Scheduling interviews might not occur all at once, but the plan is to have executed a sufficient number of interviews to support the research objective of this documentary before the end of the semester. Release forms will also be collected during the pre-production stage.

Production is the stage that entails executing all of the interviews and filming all of the b-roll. Lighting operation and audio recording on the set of interviews are also important parts of the production stage. Recording my narrative that will be used to guide the storyline of the documentary is also an essential part of the production stage. Not to mention, gathering all of the archival footage, including audio, video, and images that are available to the public will be used to support the storyline and provide context to certain scenes.

Post-production is the final stage that includes editing all of the footage, mixing all of the audio, compressing the final version of the documentary, and then sharing the final version of the documentary to audiences. All the final touches are made during this stage, including drafting different versions of the product after integrating feedback from my committee members and my advisor. A first version of the documentary will be
shared with my committee and my advisor for review before the start of the next semester. Any secondary or tertiary versions of the documentary should be finalized before the month of April in the year 2023.

**Budget**

Full Award Amount: $1,500

Total Budget Request: $1,499.97

Canon EOS RP Mirrorless Camera with RF 24-105mm f/4-7.1 IS STM Lens: $1,299.99

RØDE VideoMic On-Camera Shotgun Microphone: $149.99

K&F Concept BI234M Lightweight Magnesium Travel/Vlog Tripod with Ball Head: $49.99

**Budget Justification**

The camera that will be used to film this documentary must be a camera that can take photos and record in 4K video, or 2K video at various frame rates including 60fps, or 1.5K at 120fps. The camera must also have a lead screw-type STM motor that enables smooth autofocusing and optical image stabilization, as well as a control ring that allows for quick setting changes, including shutter speed and aperture. In addition, this documentary requires a camera with a range of 18mm to 105mm. A range of 18mm to 105mm will allow for a versatile zoom range, capturing different subjects with ease. Shooting a documentary is much more of a “run-and-gun” situation where one requires flexibility over quality. Therefore, the camera must also be compact and lightweight. Finally, shooting lengthy but informative interviews will burn through the camera’s
battery, therefore, a camera with a long-lasting battery is required (Canon EOS RP Mirrorless Camera with RF 24-105mm f/4-7.1 IS STM Lens: $1,299.99).

The microphone that will be used to capture the audio of interviews must be of compatibility with the camera that will be used to film this documentary. In addition, the microphone must have a Rycote Lyre-based shock-mounting system that isolates the microphone capsule and electronics from the shoe mount to help eliminate rumbling and vibration. The microphone must also have a super cardioid polar pattern that enables highly directional recording to help minimize distracting background noise. Most importantly, the microphone must have a condenser capsule that captures clear and high-quality sound (RØDE VideoMic On-Camera Shotgun Microphone: $149.99).

The tripod that will be used to support the camera, while shooting on location for interviews or b-roll, must be compact and lightweight. As previously mentioned, shooting a documentary requires flexibility over quality. Therefore, the tripod must have magnesium legs with flip lock joints and a quick release plate. In addition, the tripod must have a load capacity of 17.6 lb, suitable for use with the camera (K&F Concept BI234M Lightweight Magnesium Travel/Vlog Tripod with Ball Head: $49.99).

All these costs are relevant and essential for the production of this documentary. These costs represent only the necessary items to film this documentary and capture the audio of interviews and narratives. These items will successfully facilitate the visual experience of this documentary and provide the foundation for capturing the quality of conversations with interviewees. As briefly mentioned in the abstract of this proposal, interviews are the most important element of this documentary, not only because they are imperative to attract and engage audiences, but also because they will be used to drive the
storyline to educate audiences on the economic and social implications of fossil fuel divestment.

Honors College Charlie Slavin Research Grant

Abstract

*A Story of Student Activism: Divest UMS*, will be a documentary that focuses on informing the public about fossil fuel divestment within the University of Maine System, while also increasing the public’s awareness and support of fossil fuel divestment as a broader movement, thus promoting the overall object of the organization, Divest UMS. This documentary will undertake and engage with qualitative research methods, scheduling and executing interviews, as well as, camera operation, lighting operation, audio mixing, and film editing. This documentary is intended to educate audiences by seeking to answer the following questions related to fossil fuel divestment: How have student activists played an instrumental role in fossil fuel divestment within the University of Maine System? What does fossil fuel divestment mean for the University of Maine System and members of the community? Finally, what voices will student activists have going forward with this process?

Project Description

Documentaries are often used to inform the public, moreover, they can be used to increase the public’s awareness of certain issues, motivate public involvement, and have a beneficial impact on an organization’s overall objective. Documentary filmmaking is a research process that must ensure credibility, transferability, dependability, and confirmability. Documentary filmmaking has been traditionally viewed as a creative
practice, however, peer-reviewed journal articles have recently recognized documentary filmmaking as an academic research method. Most importantly, documentary filmmaking uses specific qualitative research methods presented in long-form storytelling. The general research objective of this documentary is to educate audiences on the economic and social implications of fossil fuel divestment by assessing how fossil fuel divestment and climate justice solutions have directly impacted members of the community.

This documentary will seek to assess the work of student activists, faculty, and staff affiliated with Divest UMS. In addition, this documentary will seek to assess the work of local community leaders pursuing climate justice based solutions. This documentary will also seek to verify the importance of fossil fuel divestment within the University of Maine System. This documentary will seek to explain the complexity of fossil fuel divestment within the University of Maine System’s Endowment Fund by asking interviewees thoughtful questions. To understand the complexity of fossil fuel divestment within the University of Maine System, I must conduct interviews. These interviewees will provide a great deal of information that will have to be simplified in order to articulate how an institution must go about divesting their assets including stocks, bonds, mutual funds, and other financial instruments connected to companies involved in the fossil fuel industry. In addition, I must conduct interviews that will provide an insight as to how fossil fuel divestment was enacted. Conducting interviews will require interviewing techniques, as well as camera operation, lighting operation, and audio mixing, all of which are valid research objectives. Location selection, participant selection, informed consent, and sharing results are also valid research objectives that
stem from this particular documentary. Other research objectives include conducting academic research on the given topic.

This documentary is important to the field of economic sustainability. Moreover, it will be considered a valuable resource to this field of study because it will be used to educate audiences on a particular practice (fossil fuel divestment) that supports long-term economic growth without negatively impacting the local and global community. Economic sustainability is a field that explores the empirical foundation of the global sustainability crisis, examines and measures the different perspectives and strategies that have been implemented to resolve certain sustainability challenges over time. Economic sustainability provides a theoretical framework to understand the disequilibrium between living populations and the environmental resources they depend on. Fossil fuel divestment is one of the many topics of discussion that stem from the global sustainability crisis. However, the aspect that makes discussion about fossil fuel divestment stand out, is the fact that it provides a market-oriented solution to the global sustainability crisis. Fossil fuel divestment is the fastest growing divestment movement in history. Thousands of institutions around the world representing trillions of dollars in assets are committed to fossil fuel divestment. Interestingly enough, fossil fuel divestment campaigns at colleges and universities around the world, driven by student activism, have been leading this historic movement.

Researching the economic and social implications of fossil fuel divestment directly relates to what I have been studying for the last four years. Fossil fuel divestment and climate justice have both been valuable topics of discussion within a number of courses that I have taken. For instance, international political economy, international
environmental economics and policy, sustainable development principles, and of course both macroeconomics and microeconomics. Officially, my field of study is International Affairs with a Concentration in Economics. The time I have devoted to developing my understanding of macroeconomic trends, the various implications of the international political economy, and the pressing issues of today have undoubtedly shaped the way I view the world.

Although conducting traditional research can be impactful and informative, I want to dive deeper into how fossil fuel divestment directly impacts others and how climate justice could have a local impact by applying my skills in journalism that specialize in documentary filmmaking. The research methodology that is required from documentary filmmaking is what I believe to be most valuable. I view documentary filmmaking as a challenge that involves multiple aspects of qualitative research practices. The way I see it, directing and editing a documentary film is the most engaging process that allows me to share a compelling story. The visual medium that film possesses makes it possible to capture the attention of audiences; therefore, film is not only a tool of artistic self-expression, but a tool to raise awareness, and most importantly, to educate.

Timeline

This documentary will be accomplished in three stages: pre-production, production, and post-production. As with most films, the general rule of thumb is to follow this three-step process in order to achieve the highest likelihood of success. With that being said, each stage is distinct from one another, but rather self-explanatory based on their titles. Pre-production, being the initial stage, is more concerned with organizational and outreach skills. On the other hand, the stage of production is more
concerned with management and mobilization skills. Finally, post-production is more concerned with editing and execution skills. Adaptability and creativity are all necessary skills that must be carried all throughout the three stages of documentary production to ensure the highest likelihood of success.

Pre-production is essentially the stage of organization which is concerned with all the necessary arrangements and preparations to begin filming. This includes the development of ideas for the film, storyboarding, and financing. Pre-production is also necessary to establish leadership roles within the film crew, and in my case, my building a team of committee members in addition to an advisor. Furthermore, pre-production will require location selection, participant selection, scheduling interviews, and informed consent.

The topic for this documentary was developed in consultation with my committee members in addition to my advisor. After developing a topic for this documentary, storyboarding would be the appropriate next step. A storyboard would essentially look like a written version of the documentary that is structured in the format of a two-column script. The storyboard is split into two columns: the left column of the script will describe all the video the audience will see (b-roll, interviews, photos, diagrams, screen captures, etc.) and the right column will describe all the audio the audience will hear (interview bits, music, narration, sound effects, etc.). In summary, each row equals one scene in the documentary, with the audio playing over the video. The storyboard is also a working document that is aimed at predicting what my final cut will look like. In addition, I will focus on building a team of committee members spearheaded by an advisor to provide me
with consultation, guidance and critique throughout the production and post-production stages.

Finally, as part of the pre-production stage, I plan to schedule tech scouts and select locations to film b-roll and interviews. Tech scouts will entail visiting a location with an intention to figure out the final details of filming at the space. I also plan to select participants, or rather, potential interviewees by first researching their backgrounds and then constructing talking points and refined interview questions tailored to their area of expertise. I will contact everyone I want to interview in advance, giving them as much notice as possible about my documentary and expressing my desire to interview them. Scheduling interviews might not occur all at once, however, the plan is to have executed a sufficient number of interviews to support the research objective of this documentary before the end of the semester. Release forms will also be collected during the pre-production stage.

Production is the stage that entails executing all of the interviews and filming all of the b-roll. Lighting operation and audio recording on the set of interviews are also important parts of the production stage. Recording my narrative that will be used to guide the storyline of the documentary is also an essential part of the production stage. Not to mention, gathering all of the archival footage, including audio, video, and images that are available to the public will be used to support the storyline and provide context to certain scenes.

Post-production is the final stage that includes editing all of the footage, mixing all of the audio, compressing the final version of the documentary, and then sharing the final version of the documentary to audiences. All the final touches are made during this
stage, including drafting different versions of the product after integrating feedback from my committee members and my advisor. A first version of the documentary will be shared with my committee and my advisor for review before the start of the next semester. Any secondary or tertiary versions of the documentary should be finalized before the month of April in the year 2023.

**Budget**

Full Award Amount: $300

Total Budget Request: $292.77

- Savage Luminous Pro Bi-Color LED Ring Light: $89.99
- Impact Air-Cushioned Light Stand: $32.95
- Watson NP-F770 Battery Kit with Compact AC/DC Charger: $59.94 (x2)
- Impact 5-in-1 Reflector: $49.95

**Budget Justification**

All the lighting equipment included in this budget will work well in multiple situations. This budget aims to encapsulate a viable lighting “kit” for the film production of *A Story of Student Activism: Divest UMS*. The overarching goal of lighting equipment is to add texture, style, and professionalism to the film. Since cameras do not respond to lighting in the same way that the human eye does, it is important to add professional lighting to the film production in order to enhance the visual experience of the audience. Lighting is truly one of the most essential elements used to create high-quality, authentic films.
The Savage Luminous Pro Bi-Color LED Ring Light ($89.99) is useful in providing professional lighting for interviews. For instance, if the light is put off to the side of the subject at a 45° angle pointed downward and if there is a window light backlighting them, then the shot looks quite stylized and professional. This light is an LED, meaning it has a low power consumption and it can dial in the Kelvin of the lighting temperature anywhere from 0% to 100% to fit seamlessly into any ambient light situation, match room light, or just for creative expression. This light is compact and portable at 18” and boasts a 3200 to 6000K variable color range. It has a high CRI rating of 94, therefore, it assures a precise accuracy in color reproduction. This light is also mounted on a ball head that allows it to be placed anywhere. The light includes an AC adapter, however, it can also run on two NP-F batteries when AC power is unavailable. The magic of this light is that the camera can be positioned in the center of the light and shoot through it at the subject. The Impact Air-Cushioned Light Stand ($32.95) is simply the stand that is used to support the light. It has a minimum height of 34” and a maximum height of 96” and a load capacity of 8 lb. This is an excellent stand with a compact design that is made out of aluminum.

The Watson NP-F770 Battery Kit with Compact AC/DC Charger ($59.94 x2) can be used almost anywhere without worrying about finding a lighting outlet. Watson batteries are fairly dependable, in fact, they come with a charger small enough to be carried in any bag, or in a pocket. The Compact AC/DC Charger comes with an L-Series battery plate, which is interchangeable with any of a large variety of other Watson plates, sold separately, and it features a fold out US plug, a USB port, and overcharge/overheat
protection. It supports 100-240 VAC worldwide power input and includes a 12 VDC car lighter adapter and European plug adapter.

The Impact 5-in-1 Reflector ($49.95) provides additional professional lighting. For instance, if there is a subject outside in direct sunlight, the diffusion of the reflector can be used to soften the light hitting them. The reflectors are good when it is necessary to use the sun as a backlight, with that being said, they work perfectly. The handles and diffusion are what make this product invaluable. The reflector’s design provides handles that allow the disc to be held in a flat or U-shaped position, or in any way that gets the job done. Each of the grips has additional 3/8”-16 threaded sockets for attachment to accessories or grip equipment. Not to mention, the 5-in-1 Reflector comes with a carry/storage case. This specific reflector has a size of 42" and anything smaller would not be useful.
AUTHOR’S BIOGRAPHY

As a social documentary filmmaker, Santiago Tijerina seeks to explore human dimensions and experiences, to engage with visual anthropology, to amplify the mission of organizations and individuals dedicated to positive social and environmental change, and to advocate for important causes at both a local and global scale.

Tijerina is passionate about civic engagement, leadership, and using visual storytelling as a catalyst for change. His life experiences and worldview has shaped his voice in visual storytelling and has provided him with the motivation to capture powerful images and tell stories that are deeply personal and deeply compelling to audiences.

Tijerina graduated from the Honors College at the University of Maine with a Bachelor of Arts in International Affairs (Economics) and is a member of Phi Beta Kappa. Tijerina is now pursuing a Graduate Certificate at the Salt Institute for Documentary Studies at the Maine College of Art & Design in Portland, Maine.