

SPARKS

by

Jacqueline Noël Ratliff

A thesis submitted in partial fulfillment
of the requirements for the degree

of

Master of Fine Arts

in

Science and Natural History Filmmaking

MONTANA STATE UNIVERSITY
Bozeman, Montana

May 2024

©COPYRIGHT

by

Jacqueline Noël Ratliff

2024

All Rights Reserved

DEDICATION

I dedicate my Thesis Film to my parents. Thank you for believing in me and inspiring me to conquer the seemingly impossible. Your boundless love and unwavering support have been the pillars upon which I've built my aspirations. Also, thank you for showing me that as a girl, I can do anything I set my mind to, even if it involves pursuing a career in a male-dominating industry. This thesis will testify to my hard work, diligence, remarkable support, unwavering gratitude, and love. Thank you for letting me spread my wings. I love you both.

A heartfelt dedication also extends to my sister, Madeline Cole. I am confident you will achieve remarkable feats in life, and I eagerly anticipate the opportunity to reciprocate the support you have generously bestowed upon me.

Lastly, I extend my dedication to the teachers and mentors who have played instrumental roles in my journey. Their guidance, encouragement, and relentless push beyond my perceived limits have shaped my educational path and fostered a deep appreciation for the subjects and topics I hold dear. To Bonnie Calderwood, Chris Turner, Keith Newman, and Candice Thomas-Maddox. I sincerely thank them for their invaluable contributions to my growth and development.

In memory of Sherry "Nanner" Dover and Paul "Paps" Moreland, fly away with dragons to the land apart.

ACKNOWLEDGEMENTS

I want to thank my committee chair, Hugo Sindelar, for his support, honest feedback, and advice during my times of need. I would also like to thank my committee members, Alexis Pike and Cat Dale, for supporting my choices and offering advice and encouragement throughout my thesis year.

I want to give a huge shout-out and thank my excellent subject, Brenda Stredwick, for sharing her story and letting me be a part of her remarkable life and career.

Finally, I would like to thank a few professors who not only supported me throughout my time at MSU but also taught me the importance of creativity and the courage to take chances on sometimes daunting tasks: Heather McKenney, Ryan Parker, Cynthia Stillwell, and Lucia Ricciardelli.

TABLE OF CONTENTS

1. BACKGROUND	1
Filmmaker Bio	1
Artistic Statement.....	2
Film Logline.....	3
Synopsis	3
List of Crew	4
Financial Information.....	4
2. HISTORY, CONTEXT, AND APPROACH	7
Section 2.1: Research.....	7
Section 2.2: Connection to the Broader Field.....	14
Section 2.3: Artistic Approach	22
3. CONNECTION TO THE MATERIAL AND DISTRIBUTION PLANS	26
Section 3.1: Connection to the Material	26
Section 3.2: Dissemination	27
WORK CITED.....	29

LIST OF TABLES

Table	Page
1. Table 1. Financial Budget for Film.....	5

LIST OF FIGURES

Figure	Page
1. Still from <i>Blackfish</i> (2013).....	11
2. Still from <i>Harlem County, USA</i> (1978)	11
3. Infographic demonstrating the equipment and process of MIG welding.	13
4. Still from <i>Tom</i> (2023). A slow motion, extreme up-close sequence still image of a Wild Steelhead caught in a fishing net.	18
5. Still from <i>Raised From Earth</i> (2021). Sit-down interview of protagonist Athena in her home.	18
6. Stills from <i>North Shore Betty</i> (2022). Snapshots of a long pan across the forest landscape, following the women through the forest on their mountain bikes.	18
7. Still from <i>Single Stream</i> (2014). A glimpse of recycling materials floating in the air at a recycling facility.	21
8. Still from <i>Nuisance Bear</i> (2021). A polar bear coming to a road to cross.	21
9. Stills from <i>Time&Temperature</i> (2022). Three stills of one sequence showing the subject (Venetian Maestro Gianni Toso, glassblower) creating a piece of art using a blow torch. The warm tones are seen throughout the sequence.	25

ABSTRACT

Exploring a world unknown to some, the short documentary *SPARKS* invites viewers to view the world of welding through narrative and immersive storytelling. The short documentary demonstrates the impact of one's dream and highlights how even small acts of empowerment can lead to fulfilling endeavors. While making the film, this paper was written to help share specific research, thoughts, and ideas critical to creating the story. In the beginning phases, a detailed logistical outline provided insight into the filmmaker and crew. The research was a pivotal phase; deep diving into subjects and topics portrayed in the film and drawing insights from comparable films aid in illuminating overarching themes and editing styles. For *SPARKS*, the paper examines the industrial industry of welding and ironwork in the context of female labor. Thus, it identifies holes in employment for female workers in male-dominated careers. Understanding this key fact helped inform this film. The paper explores connections to the broader field of science and natural history documentary filmmaking, emphasizing observational/expository styles and immersive ethnographic experiences in contemporary documentaries. Films (not limited to) like *Single Stream*, *Nuisance Bear*, *TOM*, and *Glass* were examined. The latter part of the paper explains Brenda Stredwick's (protagonist) and filmmakers' connections while outlining distribution plans involving a festival circuit, educational showings, and free screenings. This paper offers insight into Stredwick's inspiring journey and its broader implications within documentary filmmaking and gender dynamics in the arts.

CHAPTER ONE

BACKGROUND

Filmmaker Bio

Jacqueline Ratliff is a passionate storyteller who focuses on creating emotionally impactful narratives. Her dedication to storytelling has enriched her understanding of the intricate art of conveying a compelling tale. She possesses a particular affinity for narratives that vividly express the resilient and inspiring human spirit, often alongside thrilling adventures and conservational endeavors. Jacqueline believes capturing the bond between coexisting humans and animals can help bridge the cohabitation gap. Her work reflects a commitment to storytelling that is not only visually captivating but also emotionally resonant. Jacqueline aspires to instill hope in a world of chaos and to bring a smile to her audience.

Jacqueline graduated in 2021 with a BSC in Media Arts and Studies - Integrated Media and minors in Geography, History, and Communication Studies from Ohio University, Ohio. Jacqueline specializes in photography and cinematography and, through these mediums, has captured everything from the athleticism of DI sports to conservation and environmental efforts in the field. Jacqueline's filmmaking ventures have taken her to Yellowstone National Park, Race to the Sky 300-mile sled dog race, and a Draft Horse Sanctuary. She is finishing her thesis year in the MFA Science and Natural History Filmmaking program at Montana State University Bozeman. For her thesis film, she is capturing the world of welding through a female perspective by showcasing a woman artistic welder as her protagonist for her film *SPARKS*.

Her passion extends beyond her camera abilities and has broadened her horizon with numerous other activities and hobbies that she enjoys in her spare time. Jacqueline loves to kayak, winter camp, and bike. She cherishes time with family and friends and can sleep anywhere at any given time. She is a traveler and is always ready for the next adventure ahead.

Artistic Statement

My artistic journey is fueled by a deep understanding of compassion and hard work, driving me to utilize my storytelling abilities in a way to which other people can relate. Growing up in the rural countryside of Ohio, my midwestern sensibility and deep Appalachian roots inspire my curiosity for creative storytelling. Joined by the resilience of the blue-collar worker and underdog tales that defy societal conventions, my films are powered by an enthusiasm to reveal the extraordinary in the seemingly ordinary, celebrating the human spirit amidst the interconnected threads of nature and society. In my latest short documentary, *SPARKS*, I challenge societal norms by portraying a female protagonist in the traditionally male-dominated realm of welding. Drawing from my upbringing, I weave a narrative where art emerges as a haven amidst the rigors of ordinary life. *SPARKS* serves as a testament to positive outlooks and is a tribute to the power of art, transcending the boundaries of both science and society. The film embarks on a journey of self-love, optimistic empowerment, and appreciation for life experiences. Through my stories, I affirm that goodness endures in our shared human experience, serving as beacons of hope that ignite a collective belief in the enduring strength of the human spirit.

Film Logline

Brenda Stredwick began welding at eight and started her business at age sixteen. She found her artistic dream early on, which resulted in her long career as an artistic welder. As a mother and mentor, she uses her skills and experiences to help teach and empower generations of women through her lifelong hobby, welding.

Synopsis

One man's junk is another woman's treasure. Welding at its core is melting and mending two or more pieces of metal together, creating structural works of art. Brenda Stredwick uses welding to transform the world's old and forgotten metal into something beautiful and meaningful. At eight years of age, Brenda, now in her forties, learned how to weld from her dad. By sixteen, her new welding business had grown from fixing old farm equipment and horse trailers to creating rustic, contemporary, and whimsical art pieces that can bring a smile to her audience. Though being in a male-dominated industry challenges the negatively perceived female work ethic, she uses her carefree attitude and determination to build the business of her dreams.

The film will intertwine verité and avant-garde stylistic elements while using the expository and observational modes throughout. It will play with ethnographical soundscapes to help capture the intimacy between welder and the process of welding. These sounds will highlight the distinct auditory experiences of various tools interacting with different metals, offering a perspective from the welder's point of view. Archival footage and interviews with Brenda will showcase events that have led to her present success.

Her interest for welding does not stop at creating. She is also and teacher and a mentor. She uses her skills and knowledge to help teach woman of all ages how to weld and discover a new passion. Brenda uses her community ties to promote her work and engage with the public through social media, hoping to influence those willing to learn. The film *SPARKS* will ignite a passion within to encourage all ages to pursue any goal, no matter how far-fetched it may seem. The film's immersive experience will demonstrate what it's like to take something old and neglected and transform it into something new and cherished.

List of Crew

Jacqueline Ratliff – Filmmaker/Cinematographer/Editor

Andie Madsen – Audio Mixer/2nd Cinematographer

Financial Information

Funding was raised through a combination of sources, including an Indiegogo campaign, private donors, and personal contributions. The Indiegogo campaign started on November 1st and ran till December 2023. The deadline for the campaign helped ensure that the filmmaker collected enough donations before principle filming. Personal contributions were made to help pay for certain expenses before the donations were collected. The film takes place in Belgrade, Montana and was only twenty minutes from the filmmakers' residences. Therefore, a part money was used for transportation and meals. The money received was utilized within multiple categories of the itemized budget. Private donations were also requested.

Table 1. Financial Budget for Film

ACCOUNT DESCRIPTION		AMOUNT	UNITS	X	RATE	TOTAL
2000	ARCHIVAL, RESEARCH, AND RIGHTS					
2004	Photo Rights	1	stills	1	\$20.00	\$20.00
2005	Footage Rights	1	allow	1	\$50.00	\$50.00
2006	Researcher / Archival Clearance	1	allow	1	\$20.00	\$20.00
2008	Miscellaneous Fees	1	fee	1	\$50.00	\$50.00
	TOTAL ARCHIVAL AND RESEARCH					\$140.00
3000	CAMERA					
3005	Special Equipment Rentals/Bought/Filters	1	allow	1	\$200.00	\$200.00
3006	Camera Expendables	1	weeks	2	\$50.00	\$100.00
	TOTAL CAMERA					\$300.00
3100	PRODUCTION SOUND					
3103	Sound Expendables/Stock	1	allow	1	\$50.00	\$50.00
	TOTAL PRODUCTION SOUND					\$50.00
3200	ELECTRICAL/GRIP					
3202	Expendables/Diffusers	1	allow	1	\$25.00	\$25.00
	TOTAL ELECTRICAL/GRIP					\$25.00
3300	SET OPERATIONS AND EXPENSES					
3302	Meals	5	allow	1	\$50.00	\$250.00
3305	Heat Protection Gear	2	allow	1	\$50.00	\$50.00
	TOTAL SET OPERATIONS AND EXPENSES					\$300.00
3400	TRAVEL AND LIVING					
3407	Gas	10	days	1	\$100.00	\$100.00
	TOTAL TRAVEL AND LIVING					\$100.00
4000	TAPE STOCK, STORAGE, TRANSFER					

4003	Back-Up Drives (G-Drives 2TB)	1	drives	1	\$150.00	\$150.00
4006	Transcriptions	1	allow	1	\$150.00	\$150.00
	TOTAL TAPE STOCK, STORAGE, TRANSFER					\$300.00
5300	MUSIC					
5303	Music Licenses (sync & master)	1	allow	1	\$100.00	\$100.00
	TOTAL MUSIC					\$100.00
5400	PIX - POST PRODUCTION					
5406	Addtl. DVD's & Transfers	1	allow	1	\$50.00	\$50.00
	TOTAL PIX - POST PRODUCTION					\$50.00
6000	ADMINISTRATION					
6010	Film Festival Costs	1	allow	1	\$100.00	\$100.00
	TOTAL ADMINISTRATION					\$100.00
7000	DEVELOPMENT					
7002	Misc. (travel, confs, pitches, etc.)	1	allow	1	\$100.00	\$100.00
	Total Development					\$100.00
	BUDGET TOTAL					\$1,565.00

CHAPTER TWO

HISTORY, CONTEXT, AND APPROACH

Section 2.1: Research

In 1943, women comprised 65% of the labor workforce across all industries in the United States. Spearheaded by the "Rosie the Riveter" advertisement, female workers during World War II helped build battleships, aircraft, and weapons for the troops across the seas. By the war's end, most women had returned to their traditional livelihoods, while some stayed and created a new path for the next generation of female welders and ironworkers.¹ The present-day welding industry still struggles to gain momentum for female workers because of bias towards female laborer's and their perceived work ethic. The short documentary *SPARKS* explores one woman's experience and dream, which becomes a testament by providing a safe space to grow and explore the tradecraft of welding.

Committing to one's passion comes with obstacles. The ultimate objective of *SPARKS* is to create a thought-provoking short film that portrays an artist pursuing one's dream, creating an intersection between art and science, and producing resources and encouragement for the underrepresented towards a trade traditionally considered for males. The film will employ graphic writing to help convey information about resources that audience members can explore further. For Brenda Stredwick, she uses her skills and knowledge to teach and empower women of all ages to weld and follow their dreams. *SPARKS* showcases a sense of possibilities and confidence among young teenagers and women. The documentary illustrates these aspects

¹ "Universal Technical Institute of Illinois," *Women in Welding: UTI*. (UTI Corporate, 2023) <https://www.uti.edu/blog/welding/women-in-welding>.

through one of her interviews, showcasing the importance of online platforms and their role in igniting fresh inspiration and opportunities to Brenda and her followers. The b-roll helps exemplify her role in teaching by showing her welding class. Furthermore, the short film will introduce women and the next generation of females in considering welding to be a viable and exciting career path, thus contributing to diversifying the welding workforce and creating a more representative industry for future generations.

SPARKS presents a gender movement within male-dominated careers in welding and documentary films. In 2021, the workforce of welding, soldering, and brazing workers totaled "...572,709 individuals, comprising 5.59% women and 94.4% men, marking a 1% increase from eight years prior", according to Data USA.² Notably, the welding industry predominantly performs on-site, making it less receptive to offshore outsourcing. Forbes reports that the U.S. welding industry is expected to grow by 6% by 2026.³ With the supply and demand shifting and looming shortages on the horizon, women can play a pivotal role in changing the landscape of the welding industry. The relevance of this documentary comes at a pivotal time.

SPARKS introduces the audience to an age-old topic of gender bias. The film uses its platform to visually and auditorily illustrate the gender diversification within this industry. The film illustrates the power of a female role model in their ability to educate and inspire the next generation, especially with the help of the internet. In 2014, a woman named Samantha Farrugia founded a 501©(3) non-profit program called *Women Who Weld*. The program addresses the

² "Data USA, ed," *Welding, Soldering, & Brazing Workers*. (Data USA, 2024) <https://datausa.io/profile/soc/welding-soldering-brazing-workers>.

³ Mark C. Perna, "Weld like A Girl: A Millennial Woman's Success in a Man's Worlds," *Forbes*, (Forbes, January 6, 2020). <https://www.forbes.com/sites/markcperna/2019/11/19/weld-like-a-girl-a-millennial-womans-success-in-a-mans-world/?sh=5f8def4e2161>.

"gender imbalance and urgent talent shortage in the welding and manufacturing industries" through its intensive and introductory training programs.⁴ Other programs like *Weld Like A Girl* are furthering educational values, providing women with industrial opportunities, and diversifying the workforce. In 1987, a research study indicated that females held only 5.1% of secondary agricultural educator positions nationwide. However, by 2021, 76% of graduates in teacher preparation programs in agricultural education were female.⁵ Thus, *SPARKS* demonstrates experiences that break gender bias while challenging how women view themselves within blue-collar occupations.

Documentaries have a rich history of catalyzing significant and lasting change through their impact. The 2013 *Blackfish* documentary sparked an environmental movement informally dubbed "Blackfish effect," which the film surprised many with its vital impact on SeaWorld's revenues, stock values, and most recently, its orca breeding program (figure 1).⁶ Films such as the 1978 documentary *Harlan County, USA*, shed light on the transformative power of documentaries, demonstrating how a crew's mere presence can alter the course of events (figure 2). For example,

...in the film's 2004 Criterion Collection special feature, *The Making of Harlan County, USA*, one of the striking Eastover miners, Jerry Johnson, attributes the conclusion of the strike to the presence of director Barbara Kopple and her film crew: "The cameras probably saved a bunch of shooting. I do not think we would have won it without the film crew. If

⁴ "Women Who Weld, ed," *Women Who Weld*®. (Women Who Weld®, 2024). <https://www.womenwhoweld.org/>.

⁵ Kjersti Decker, "Student Perceptions of Male and Female Instructors in a Post-Secondary Welding Course." Order No. 30526715, Utah State University, 2023. <https://www.proquest.com/dissertations-theses/student-perceptions-male-female-instructors-post/docview/2848693594/se-2>.

⁶ Caitlyn Burford and Julie "Madrone" Schutten, "Internatural Activists and the 'Blackfish Effect': Contemplating Captive Orcas' Protest Rhetoric through a Coherence Frame," *Frontiers in Communication* (January 12, 2017), <https://doi.org/10.3389/fcomm.2016.00016>, 1

the film crew had not been sympathetic to our cause, we would have lost. Thank God for them; thank God they are on our side.⁷

Harlan County, USA, and *Blackfish* are just some of the films that have enacted change and increased representation concerning people like environmentalists or female labor activists. Present-day documentaries still challenge stereotypes by placing women at the forefront of these narratives, contributing to a more inclusive representation of women's experiences and breaking away from traditional gender roles. Sports documentaries utilize archival footage to bring historical stories back to the forefront, such as the 2021 *Girls Can't Surf* documentary highlighting a group of women renegade surfers challenging the male-dominating professional surfing world for equality.⁸ This diversification enriches storytelling and provides crucial role models for those who may have been underrepresented. Moreover, the shift in narrative allows for the exploration of unique and often overlooked stories, broadening the understanding of women's contributions to various fields like welding. In demonstrating the journey of a female protagonist within the male-dominated trade, *SPARKS* broadens gender representation in manufacturing industries and filmmaking careers by underscoring how welding transcends conventional boundaries to become a medium for creative expression and precision craftsmanship.

⁷ Barbara Kopple, *The Making of Harlan County, USA*, (United States of America: The Criterion Collection, 2004). <https://www.criterionchannel.com/harlan-county-usa/videos/the-making-of-harlan-county-usa>.

⁸ Christopher Nelius and Michaela Perske, *Girls Can't Surf*. Film. (Australia: Pursekey Productions and Finch, 2020). Documentary Film

Figure 1: Still from *Blackfish* (2013). The film shows how big the unpredictability of a captive orca is.



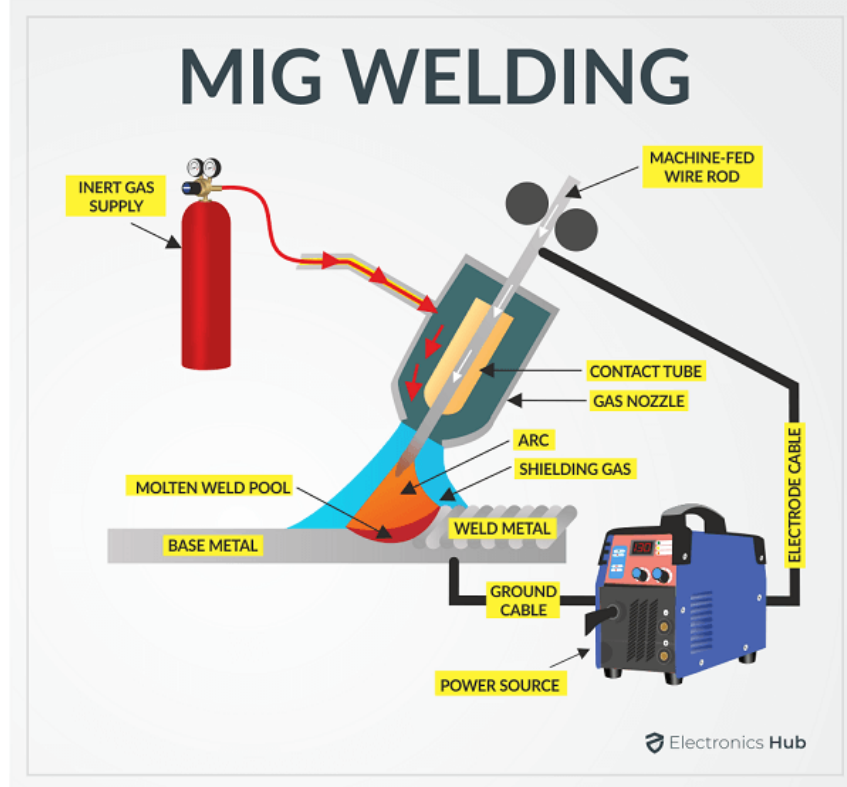
Figure 2: Still from *Harlan County, USA* (1978). The coal miners' wives stand on a picket line as the filmmakers record the event.



From a scientific standpoint, welding involves advanced knowledge of metallurgy, thermodynamics, and material properties. Welders employ precise techniques to join metals, considering factors like heat input, welding currents, and welding positions to ensure structural integrity. The four types of welding procedures are Gas Metal Arc Welding (MIG), Gas Tungsten Arc Welding (TIG), Shielded Metal Arc Welding, and Flux Cored Arc Welding (ARC). In the film, Brenda uses the MIG welder, which uses "...a shielding gas along the wire electrode, which heats the two metals to be joined. This method requires a constant voltage and direct-current power source" (figure 3).⁹ Concurrently, welding can be an art form, surpassing technical aspects. It allows practitioners to express their creativity through manipulating metal and creating intricate and aesthetically pleasing objects and structures. *SPARKS* displays the intersection between science and art and further explores the demographic of women in the metal industry.

⁹ Robert Lanni, "Popular Types of Welding Processes Explained," *Lincoln Tech News Blog*, (January 31, 2024), <https://www.lincolntech.edu/news/skilled-trades/welding-technology/types-of-welding-procedures>.

Figure 3: Infographic demonstrating the equipment and process of MIG welding.



SPARKS pushes to embrace imagination through art while embarking on a journey of empowerment. The film immerses the audience in the world of welding and then shifts the societal perspective. Instead of a workshop full of masculine energy within the industrial trade, the audience is brought into a contemporary artistic metal shop surrounded by empowering affirmations and whimsical and rustic pieces of art. *SPARKS* seeks to capture the beauty and innovation of welding as a means of artistic exploration rather than just a practical skill. The film uses avant-garde elements to illuminate an immersive welding experience for the audience to explore second-hand. This thematic element within the film broadens the narrative scope, inviting audiences to appreciate the intersection of science and artistry.

The main thrust of the film will include the struggles and challenges of pursuing personal and professional pursuits alongside creating space for others to learn. *SPARKS* pushes the boundaries with a subject that defines societal norms and challenges the audience to explore their creative insights. Questions that were considered while making the film included: How does welding affect the psyche? Has Brenda actively made any changes towards mentoring women and girls within her community? How has her passion influenced her children? What is it about welding that makes Brenda love it so much? Where does she get her inspiration?

Section 2.2: Connection to the Broader Field

The documentary genre has a long history, dating back to the early twentieth century. In the early 1900s, pioneering filmmakers like Robert Flaherty paved the way with groundbreaking works such as *Nanook of the North* (1922).¹⁰ After WWII, nearing the 1960s, tape recorders and handheld cameras became more user friendly. They could be used more easily around a scene, making the observational style apparent in films like *High School* (1968).¹¹ By the mid-century, a surge in politically charged documentaries came to the surface, including works by Dziga Vertov and the emergence of the *cinéma vérité*. During the 1980s, the genre shifted towards more personal and subjective storytelling, as seen in Michael Moore's documentaries such as *Roger & Me* (1989).¹² By the twenty-first century, technological advancements and the uptake of streaming platforms and outlets opened new opportunities to demonstrate the diversified topics and voices which can reach a global audience. Examples include environmental issues and

¹⁰ Robert Flaherty, *Nanook of the North* (United States: Revillon Frères presents, 1922). Documentary Film

¹¹ Frederick Wiseman et al., *High School*, (United States: OSTI, Inc., 1968). Documentary Film

¹² Michael Moore, *Roger & Me*, (United States: Warner Home Video, 1989). Documentary Film

animal rights topics, as seen in *Blackfish*, which played a pivotal role in raising awareness internationally.¹³ Present-day documentaries are constantly evolving into new dynamic styles of storytelling. Despite some stories being recycled, the essence of the independent documentary remains unaltered. As Bill Nichols, author of *Introduction to Documentary*, quotes, "...the independent documentary film that has brought a fresh eye to the events of the world and has told stories, with verve and imagination, that broaden horizons and awaken new possibilities" will always endure.¹⁴

SPARKS speaks to this history by creatively utilizing the observational and expository styles alongside an experimental component to add to the imaginative storytelling experience as an independent documentary. There is a hint of the categorical approach defined by Thomason Bordwell: *Film Art* as "...groupings that individuals or societies create to organize their knowledge of the world".¹⁵ *SPARKS* categorizes its subject's trade-welding. When exploring the observational mode in context to what has influenced *SPARKS*, films like *The Story of the Weeping Camel* (2004) and *Sweetgrass* (2010) come to mind. *The Story of the Weeping Camel* dives into the original "fly-on-the-wall" style, meaning the audience is observing a seemingly uninterrupted look into the lives of the rural Mongolian people.¹⁶ Scott MacDonald, author of the 2013 book *American Ethnographic Film and Personal Documentary*, speaks to a new type of observational mode called "contemporary observational documentary." MacDonald shares that

¹³ Gabriela Cowperthwaite, Eli B. Despres, and Manuel V. Oteyza, *Blackfish*, (Warszawa: TiM Film Studio, 2014). Documentary Film.

¹⁴ Bill Nichols, *Introduction to Documentary*, 3rd ed. (Bloomington, IN: Indiana University Press, 2017).

¹⁵ David Bordwell and Kristin Thompson, *Film Art: An Introduction* (New York City, New York: McGraw-Hill, 2010), 343.

¹⁶ Byambasuren Davaa and Luigi Falorni, *The Story of the Weeping Camel*, (Internationally: New Yorker Films, ThinkFilm, & Prokino Filmverleih, 2004). Documentary Film.

Lucien Castaing-Taylor, director and cinematographer of *Sweetgrass* "...sees himself as both a witness and a person sharing the experience he is recording."¹⁷ *Sweetgrass* is a prime example of the transformative outlook into the "contemporary observational documentary."¹⁸ As a filmmaker, employing this concept is critical to how *SPARKS* will be portrayed to its audience. *SPARKS* is about showcasing welding and female empowerment alongside illustrating the real-time experiences as through the 'fly-on-the-wall' style of observational filmmaking. The choice to use observational mode is to not interfere with ongoing events relating to the subjects and topics explored in the film.

Although *SPARKS* used the observational mode within the film, the expository mode is also present in a short documentary, including a more structured narrative format with a talking head. Using this type of narrative structure aligns with films introduced in the science and natural history world of documentaries. Advances in technology, particularly in cinematography and camera equipment, have allowed filmmakers to capture details of the natural world with unprecedented clarity. *SPARKS* utilizes these advancements by incorporating more robust neutral density filters with higher light-blocking abilities to capture the welding pools up close. Additionally, the rise of streaming platforms and television networks dedicated to educational content has provided a global platform for documentaries. PBS Broadcasting and Khan Academy are some online platforms that *SPARKS* could use to further educate the public about welding and art. The ability of science and natural history documentaries to weave compelling narratives has fostered a deep appreciation for the wonders of the universe. Consequently, these

¹⁷ Scott MacDonald, *American Ethnographic Film and Personal Documentary*, The Cambridge Turn (Berkeley, CA: University of California Press, 2013).

¹⁸ Ilisa Barbash and Lucien Castaing-Taylor, *Sweetgrass*, (United States: Harvard Sensory Ethnography Lab, 2010) Documentary Film.

documentaries play a pivotal role in expanding the significance of discovery and curiosity, themes explored in *SPARKS*. Currently, the films that impact the stylistic choices used in *SPARKS* are combined from different films within the Patagonia brand of documentaries. *SPARKS* will borrow from *TOM* (2023), *North Shore Betty* (2022), and *Raised From Earth* (2021), which all incorporate the expository and both direct cinema and cinema vérité styles. For example, *SPARKS* cleverly incorporates slow-motion shots reminiscent of those seen in the film *TOM* to help enhance the visual story.¹⁹ Through deliberate pacing, *SPARKS* captures moments of heightened emotion and intensity, echoing the cinematic language of *TOM* (figure 4). *Raised From Earth* incorporates sit-down interviews alongside b-roll footage of their construction sites of traditional Puebloan-style buildings (figure 5).²⁰ *SPARKS* will borrow the sit-down interview style to help motivate the story alongside the b-roll footage of Brenda's workspaces. *North Shore Betty* skillfully employs long pan shots across various scenes (figure 6).²¹ *SPARKS* will adopt this technique to help the continuation of the story.

¹⁹ Asher, Koles, *TOM*. Patagonia Films. Patagonia, 2023. <https://www.patagonia.com/stories/tom/video-141930.html>. Documentary Film.

²⁰ Laura Yale, *Raised From Earth*. Patagonia Films. Patagonia, 2021. <https://www.youtube.com/watch?v=z4eN1Czkbdo&t=102s>. Documentary Film.

²¹ Darcy Hennessey and Travis Rummel, *North Shore Betty*. Patagonia Films. Patagonia, 2022. <https://www.youtube.com/watch?v=D9iuSVnfisI>. Documentary Film.

Figure 4: Still from *Tom* (2023). This is a slow-motion, extreme-up-close sequence still image of a Wild Steelhead caught in a fishing net.



Figure 5: Still from *Raised From Earth* (2021). This is a sit-down interview shot of protagonist Athena in her home.



Figure 6: Stills from *North Shore Betty* (2022). Snapshots of a long pan across the forest landscape, following the women through the forest on their mountain bikes.



Avant-garde elements within documentary filmmaking challenge conventional norms and push the boundaries of traditional storytelling, injecting a sense of artistic experimentation. Employing avant-garde elements in films involves integrating abstract visuals, non-linear timelines, and experimental soundscapes to evoke specific emotions and stimulate contemplation.²² So, by embracing these elements, documentary filmmakers can challenge preconceptions, inspire critical thinking, and offer viewers a more immersive exploration of the chosen topic. *SPARKS* incorporates certain aspects of avant-garde elements through ethnographical soundscapes. Acoustic ethnography explores how certain spaces and items are perceived by the human auditory sense. For example, in *SPARKS*, there are audio recordings of machines, grinders, MIG welders, atmospheric ambient tone, and outdoor environments, that will help enable the understanding of the sites as "...acoustic spaces and acoustic fields".²³ This concept is further expanded upon through other documentary examples that uses this style of soundscape to emphasize the significance of human sense concerning immersive films.

SPARKS utilizes the welding landscape to immerse the audience into a sensory experience. Two notable examples of films utilizing soundscapes to engage its audience are *Single Stream* (2014), directed by Toby Lee, Pawel Wojtasik, and Ernst Karel, and *Nuisance Bear* (2021), directed by Jack Weisman and Gabriela Osio Vanden. *Single Stream* explores abstraction and observation as it takes the viewers through a recycling plant in Boston,

²²Maya Films, "Understanding the Tones of Avant-Garde Documentary Films," LinkedIn, (October 6, 2023), <https://www.linkedin.com/pulse/understanding-tones-avant-garde-documentary-films-mayafilms/>.

²³Roshanak Kheshti, "Acoustigraphy Soundscape as Ethnographic Field," *In Focus*, April 2009, sec. Anthropology News, <https://www.amherst.edu/media/view/379963/original/Kheshti%2B-%2BAcoustigraphy%2Bsoundscape%2Bas%2BEthnographic%2Bfield.pdf>.

Massachusetts.²⁴ The film embarks on a journey by creating a sound design that takes the viewers in and out of the spaces. One example is during the beginning sequence; the sounds turn into high-pitched clicks and clanks of metal and glass hitting each other. The visuals capsule the minor sounds of trash falling from the ceiling becoming glittering gleams sparkling in the light floating down to the floor (figure 7). *Nuisance Bear* follows a nuisance polar bear wreaking havoc in a small northern territory town in Canada. In one scene, the polar bear walks from the wilderness towards a road, illustrating the co-existence between the bear and humans. However, the audio component is what makes this long take special. The sounds of the polar bear breathing and walking through the snow acts as if the viewers are standing directly next to the animal. Though, after looking at the clip, the bear is far away from the camera, making it impossible to hear such noises as close as they sound (figure 8).²⁵

²⁴ Toby Lee, Pawel Wojtasik, and Ernst Karel, *Single Stream*, (Sensory Ethnography Lab at Harvard University, 2014). <http://www.single-stream.net>. Documentary Film.

²⁵ Jack Weisman and Gabriela Osio Vanden, *Nuisance Bear*, (Documist, 2021). <https://www.nuisancebearfilm.com>. Documentary Film.

Figure 7: Still from *Single Stream* (2014). A glimpse of materials floating in the air at a recycling facility.



Figure 8: Still from *Nuisance Bear* (2021). A polar bear walking to a road.



Both films use sonic exploration to express different auditory levels and abstractions within their settings. *SPARKS* will employ sonic exploration aspects to entice the audience to further watch and explore an unknown world of heat and metal by getting up close to the process of welding. *SPARKS* will create fresh opportunities for exploring diverse perspectives through observational and expository styles like seen in science and natural history documentaries. *SPARKS* will add to past films in the documentary genre and start a new path within science and natural history filmmaking.

Section 2.3: Artistic Approach

As a documentary filmmaker, the art of storytelling is essential to capture the audience's attention. Visuals and sounds can only take the audience so far, but a powerful story can uniquely captivate the audience in a world of wonder. *SPARKS* will utilize observational and expository modes alongside avant-garde elements to serve as distinct tools to capture the audience's attention. The observational approach emphasizes observing subjects in their natural environment, fostering authenticity. Meanwhile, the expository mode visually introduces the protagonist in an interview setting, showcasing their personality within the film.

SPARKS uses the verité style to introduce the audience to a riveting exploration of welding. The film captures the world of craftsmanship, offering glimpses into the relentless hard work and dedication required to establish a successful business and raise a thriving family. *SPARKS* does not shy away from revealing the more hazardous aspects of the profession, vividly displaying the inherent dangers associated with metalwork. This mode introduces the audience to the profound importance of teaching and bonding within a community, emphasizing the value of mentorship. Using the experimental approach, *SPARKS* seeks to encourage the audience by

prompting them to think critically about the disparity between what they see and perceive aurally. For example, borrowing from both *Nuisance Bear* and *Single Stream*, *SPARKS* visually displays the movement of a plasma cutter, cutting through the thick steel of an old hood from a 1960s pickup truck. The noises change throughout the sequence to explore what the protagonist hears with earplugs and how the different sounds could be perceived in the workshop environment. By inviting the viewer to think about the sounds, they are subconsciously immersing themselves in the film. Also, through the observational approach these elements engage the viewers in a narrative that unveils the multifaceted reality of the welding profession—connecting the viewer through unique angles and observations of someone in the safety of their creative space. This concept illustrates the filmmaker's efforts to refrain from interfering, preserving the authenticity of the subject's reality and the truth of her work and experiences.

SPARKS is a short film that also is functioning as a portrait. By employing the expository mode, the film can provide viewers a more profound connection between the audience, the cinematic work, and its subjects through interviews and voiceovers. Other examples of this are depicted in works such as *The Alpinist* (2018) and *Tales by Light Series* (2022).²⁶ The influence of the interview and voiceover elements is drawn from *Tales by Light* series, demonstrating the skill of weaving the subject's narratives into a compelling storytelling experience enriched with both auditory and visual details.²⁷ *SPARKS* will illuminate the distinct craft of welding showcased through an artistic scope, similar to the short Dutch documentary film *Glass* (1958)

²⁶ Bryan, Ben, and Clark Fyans. *The Alpinist*. (United States: Universal Pictures, Roadside Attractions, 2021). Documentary Film.

²⁷ Joffe, Abraham. *Tales by Light*. (National Geographic, Network 10, 2015). Documentary Film Series.

produced and directed by Bert Haanstra.²⁸ Furthermore, color will be critical in presenting the "...radiant quality" of the extreme heat and fire layers.²⁹ Besides color, another factor is how a sequence is edited together, creating an immersive experience while still developing the character. A graduate student, Justin Foreman, from Maryland Institute College of Art, made a film titled, *Time & Temperature* (2022). This film demonstrates how color and editing can make or break a sequence. During one portion of the film, three clips react with each other instead of against each other, creating a flow. The colors of the fire follow throughout the sequence, leaving a glance of the warm tones in all three clips (figure 9).³⁰ *SPARKS* utilizes this method of combining color and sequences to help encompass what it feels like to be a welder and an artist. *SPARKS* demonstrates an unorthodox editing style by using avant-garde elements to help break up the traditional pacing of the non-linear editing of the observational and expository style sequences. The experimental elements act as chapter markers to help separate the different story avenues within the short documentary. Experiencing the film with a more unorthodox storytelling editing style pushes the boundaries of stories told in traditional ways in documentary filmmaking.

²⁸ Bert Haanstra, *Glass*, (Netherlands, 1958). Documentary Film.

²⁹ Nicholas, 119.

³⁰ Justin Foreman, *Time & Temperature*, (United States, 2022). Documentary Film.

Figure 9: Still from Time & Temperature (2022). Three stills of one sequence showing the subject (Venetian Maestro Gianni Toso, glassblower) creating a piece of art using a blow torch. The warm tones are seen throughout the sequence.



CHAPTER THREE

CONNECTION TO THE MATERIAL AND DISTRIBUTION

PLANS

Section 3.1: Connection to the Material

The decision to make this film comes from my love of welding. As a freshman in high school, I fell in love with welding through my agricultural courses. The ability to create, mend, and join objects together using fire excited me. The adrenaline rush from using a plasma cutter to an oxygen-acetylene torch made me admire people who entered the trade. I always said that if I had followed another career path, I would have been an underwater welder. On top of my experience with welding, I admire blue-collar workers. Growing up with a blue-collar dad who is a truck driver, I greatly appreciate and understand those who work the jobs some see as mundane and beneath them. Therefore, these are the reasons why I am the right person to tell this story; not only will I handle it carefully, but I will give the subject the time and respect she deserves.

During the beginning of the pre-production stage of *SPARKS*, I only emailed back and forth with Brenda Stredwick. I met her after Thanksgiving towards the end of the 2023 fall semester at Montana State University. Being on a tight schedule, I had to work quickly to form a relationship, and the film could have failed if the relationship had not work out initially. However, after I filmed her for the first time, we hit it off and became friends. We bonded over similar experiences with welding, FFA, and coming from blue-collar families. The relationship grew, and so did the trust. The number one problem I have dealt with in the past was communication issues with subjects. I explained upfront the need for effective communication and this led to seamless production process. During filming, she gave me considerable access to

her and her workshop. We met at her house where some of the filming took place. She had ties with the Reach Inc., an non-profit organization. She put me in contact with them, which resulted in access to the organization's auction, where Brenda's metal horse head was sold. All were welcoming, from Brenda to the director of Reach. They helped me understand protocol. Because of this, the crew and I never felt as if we were intruding. Our frequent communication was key to this film's success.

Section 3.2: Dissemination

The film *SPARKS* creates an evocative and thought-provoking short documentary that will raise awareness about women entering alternative career paths in male-dominated trades and following their dreams regardless of obstacles. Showing the film to specific festivals and schools/communities involved with passion projects, spotlighting women, and mixing art and science are the ideal audience for *SPARKS*. Upon completion, the film will be submitted to numerous festivals and hopefully start its festival run around August 2024. The primary audience members who will benefit from this film are middle to high school students, with a focus on young female teens. Contacting agricultural teachers, lecturers, and advisors within public high schools or technical colleges for screening opportunities would be a great way to showcase females in male-dominated industrial industries. The film will help illustrate the vast opportunities that colleges/universities cannot always teach and encourage more educational pursuits of trade schools to meet the much-needed demand for a blue-collar skilled workforce.

To further the film's reach, options include a PBS broadcast, which could reach people in rural areas where they may not be able to attend or afford film festivals. Additional viewers would be welding enthusiasts and those with an appreciation for sculpture and experimental

films. The film reveals a unique trade anyone willing to put forth the effort can achieve. After contracts and broadcastings are finished, the film will be published online, free for the public to enjoy.

WORK CITED

- Barbash, Ilisa and Castaing-Taylor, Lucien, *Sweetgrass*. Film. United States: Harvard Sensory Ethnography Lab, 2010. Bordwell, David, and Kristin Thompson. *Film art: An introduction*. New York City, New York: McGraw-Hill, 2010.
- Bryan, Ben, and Clark Fyans. *The Alpinist*. United States: Universal Pictures, Roadside Attractions, 2021.
- Burford, Caitlyn, and Julie “Madrone” Schutten. “Internatural Activists and the ‘Blackfish Effect’: Contemplating Captive Orcas’ Protest Rhetoric through a Coherence Frame.” *Frontiers in Communication* 1 (January 12, 2017). <https://doi.org/10.3389/fcomm.2016.00016>.
- Cowperthwaite, Gabriela, Eli B. Despres, and Manuel V. Oteyza. *Blackfish*. Film. Warszawa: TiM Film Studio, 2014.
- Data USA, ed. “Welding, Soldering, & Brazing Workers.” Data USA, 2024. <https://datausa.io/profile/soc/welding-soldering-brazing-workers>.
- Davaa, Byambasuren and Falorni, Luigi, *The Story of the Weeping Camel*. Film. Internationally: New Yorker Films, ThinkFilm, Prokino Filmverleih, 2004.
- Films, Maya. “Understanding the Tones of Avant-Garde Documentary Films.” LinkedIn, October 6, 2023. <https://www.linkedin.com/pulse/understanding-tones-avant-garde-documentary-films-mayafilms/>.
- Flaherty, Robert, *Nanook of the North*. Film. United States: Revillon Frères presents, 1922.
- Foreman, Justin, *Time & Temperature*. Film. United States, 2022.
- Haanstra, Bert, *Glass*. Film. Netherlands, 1958.
- Hennessey, Darcy and Rummel, Travis, *North Shore Betty*. *Patagonia Films*. Patagonia, 2022. <https://www.youtube.com/watch?v=D9iuSVnfisI>.
- Joffe, Abraham. *Tales by Light*. National Geographic, Network 10, 2015.
- Kheshti, Roshanak. “Acoustigraphy Soundscape as Ethnographic Field .” *In Focus*. April 2009, sec. Anthropology News. <https://www.amherst.edu/media/view/379963/original/Kheshti%2B-%2BAcoustigraphy%2Bsoundscape%2Bas%2BEthnographic%2Bfield.pdf>.

- Koles, Asher, *TOM. Patagonia Films*. Patagonia, 2023.
<https://www.patagonia.com/stories/tom/video-141930.html>.
- Kopple, Barbara. *The Making of Harlan County, USA*. United States of America: The Criterion Collection, 2004. <https://www.criterionchannel.com/harlan-county-usa/videos/the-making-of-harlan-county-usa>.
- Lanni, Robert. "Popular Types of Welding Processes Explained." Lincoln Tech News Blog, January 31, 2024. <https://www.lincolntech.edu/news/skilled-trades/welding-technology/types-of-welding-procedures>.
- MacDonald, Scott. *American ethnographic film and personal documentary The cambridge turn*. Berkeley, CA: University of California Press, 2013.
- Moore, Michael, *Roger & Me*. Film. United States: Warner Home Video, 1989.
- Nelius, Christopher, and Michaela Perske. *Girls Can't Surf*. Film. Australia: Pursekey Productions and Finch, 2020.
- Nichols, Bill. *Introduction to documentary*. 3rd ed. Bloomington, IN: Indiana University Press, 2017.
- Perna, Mark C. "Weld like A Girl: A Millennial Woman's Success in a Man's World." Forbes, January 6, 2020. <https://www.forbes.com/sites/markcperna/2019/11/19/weld-like-a-girl-a-millennial-womans-success-in-a-mans-world/?sh=5f8def4e2161>.
- Toby Lee, Pawel Wojtasik, and Ernst Karel, *Single Stream*. Sensory Ethnography Lab at Harvard University, 2014. <http://www.single-stream.net>.
- Universal Technical Institute of Illinois. "Women in Welding: UTI." UTI Corporate, 2023. <https://www.uti.edu/blog/welding/women-in-welding>.
- Wiseman, Frederick, Frederick Wiseman, Richard Leiterman, Carter Howard, and David Eames. *High school*. Film. United States: OSTI, Inc., 1968.
- Weisman, Jack and Osio Vanden, Gabriela, *Nuisance Bear*. Documist, 2021.
<https://www.nuisancebearfilm.com>.
- Women Who Weld, ed. "Women Who Weld®." Women Who Weld®, 2024.
<https://www.womenwhoweld.org/>.
- Yale, Laura. *Raised From Earth. Patagonia Films*. Patagonia, 2021.
<https://www.youtube.com/watch?v=z4eN1Czkbdo&t=102s>.