

JUMPING AT THE SUN: THE SOCIAL CONSTRUCTION
OF MYSELF AS NATURE FILMMAKER

by

Sarah Maign Smith

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

of

Masters of Fine Arts

in

Science and Natural History Filmmaking

MONTANA STATE UNIVERSITY
Bozeman, Montana

May 2014

©COPYRIGHT

by

Sarah Maign Smith

2014

All Rights Reserved

DEDICATION

In memory and honor of my grandparents – Ruth Eleanor Wardner Freeman,
Marjorie Cajune Smith, and Richard Louis Smith. Megwich.

ACKNOWLEDGEMENTS

I'd like to acknowledge the many forces behind me during this long process. To my son Courage Samuel Smith for bringing me back to center. To my parents, Marguerite Rice, Richard Smith, Bill Rice and Lorinda Smith for a lucky life full of love. To my brother, Jason Sun-Joe Cajune, for his love no matter what was said. To my treasured friends who watched my son, cooked us food, consoled and encouraged, and walked along beside me during some tough and beautiful years – Gal Aviram-Keren, Vedra Cajune, Susannah Robertson, Julie Cahill, Debbie Eli, Mona Carroll, Kyra Williams, Rick Williams, Andy Adkins, Becky Adkins, Ann Dye, Charles Dye, Damon Munsch, Marla Ollinger, Stacey Shaw, Meg Segal, Erin Bissell, Theresa Wildflower Ellis and Johnny Big Rock. To my teachers and staff at MSU for your lessons, time, and assistance – Ronald Tobias, Walter Metz, Simon Dixon, Dennis Aig, Phil Savoie, Theo Lipfert, Victoria Miller, Jeannette Goodwin, and Diane Steffan. And also to Terry McGrath, who first showed me how to run a camera.

TABLE OF CONTENTS

1. INTRODUCTION	1
2. ON NATURE.....	5
Conceptual Imprisonment.....	5
A Boastful Song.....	8
On Nature Narratives	11
3. RECIPROCITY OF EXCHANGE	17
Reader Response Theory	17
Science As Practice and Culture.....	19
Narrative Chance	21
4. A CRITIQUE OF MY WORK	26
Textual Analysis of <i>Lucky Star</i> as Writer and Reader.....	26
<i>Mating For Life</i> and <i>The Gleaners and I</i>	31
Successes and Failures.....	37
REFERENCES CITED.....	42

ABSTRACT

In this essay I deconstruct myself as a science and nature filmmaker by 1) interrogating the historical forces behind my understanding of nature; 2) coming to terms with what I've learned about the subjectivity of textual experience and the constructed "objective realities" of science driven knowledge, and 3) by showing how I travel between the two in my own filmic style through a textual analysis of my thesis film *Lucky Star*. Within this analysis I look at two films that I studied and used for inspiration – Agnes Vardas' Les Glaneurs et La Glaneuse, *The Gleaners and I*, (2000), and Cindy Stillwell's Mating For Life (2012).

INTRODUCTION

*Sometimes I go about pitying myself,
when all along I'm being carried by great winds across the sky.
-Chippewa prayer*

I played “Jumping at the Sun” with myself as a girl. The rules were simple. Jump as high as I could with my eyes closed and imagine reaching up, up, up as far into the sky with my arms and fingers stretching up and out to touch the sun. I was young enough not to be convinced either way of that which was possible or impossible. If I shot my willow frame up like an arrow toward the sun, was I really hoping to grab on to that fiery center of creation? How much intention can you assign to a young girl’s game? The dogged pursuit of children to make sense of their world and play without fear between known and unknown “realities” is remarkable. I named my production company *Jump at the Sun*, attending to this observation and the relationship between us earth bound mortals and the rest of nature.

My short career as a science and nature documentary filmmaker centers on being a mother, or is perhaps skewed by being a mother. I never set out deliberately to make a film about my son, but he has been with me for nearly all of my projects - framed carefully out of the shot, caught running in front of the viewfinder, or captured by the microphone interrupting an interview. The moment my son was born, the world I lived in became infinitely large and magical, imbued with significance and completeness at every turn. It was an absolute awareness that life comes from life. His birth brought my overly analytical mind back to stillness. Newborn eyes are clear, unburdened by layers of culture

and language. Their whole being is receptive without judgment and it is startling.

Through the accumulation of my own history, he brought me back to the world of wonder and bodily experience that was a portal. The portal led back toward the mysterious - away from concrete and specified definitions, away from the hard-earned facts I thought I knew. The mysterious essence of being that drives science, art, and philosophy quickly leads down the existential rabbit hole, which is not my plan in this essay.

So, I will move on the advice of John Updike:

...(T)he mystery of being is a permanent mystery, at least given the present state of the human brain. I have trouble even believing...the standard scientific explanation of how the universe rapidly grew from nearly nothing. Just think of it. The notion that this planet and all the stars we see, and many thousands of times more than we can see – that all this was once bounded in a point with the size of, what, a period, or a grape? How I ask myself, could that possibly be? And, that said, I sort of move on (Holt 249).

The early years of motherhood kept me in constant contact with the vibrancy of being human animals reliant on intimacy and vulnerability in an act of love.

Simultaneously, the daily role of my existence seemed very small, plagued by the frustration and isolation of the day-to-day routine of caring for my son alone while doing my work. The visceral and emotional and time-consuming act of becoming a mother rewired my life. The truth that I was just another animal going about my business while tending to my young, shifted my scientific and intellectually, human notions of feeling exceptional toward what Carolyn Merchant calls a partnership ethic “grounded in the ideas of relation and of mutual obligation” (223).

The human endeavor of telling visual narratives to reflect our understandings of nature through science is a powerful prospect. As a science and nature filmmaker, that

partnership ethic can similarly re-wire how these films are made and watched. By combining film theory with a critical eye to the history of the social and cultural construction of both Western science and nature, we can begin to bridge the communication gap between often inarticulate scientists, their overly specialized fields and language, and a public saturated with media who fall between mistrusting science completely and swallowing it whole without criticism. As Joyce Carol Oates lamented so wonderfully, our responses to nature tend to inspire “a painfully limited set of responses...-REVERENCE, AWE, PIETY, MYSTICAL ONENESS. It eludes us even as it prepares to swallow us up” (236).

Walter Benjamin reminds that cinema becomes really great once you take the art out of the hands of the powerful (Metz). Combining emotional and intellectual content can produce smart and interesting films, capable of reaching across the screen to the viewer. Before becoming a documentary filmmaker, I avoided science and nature films. Their language tends to isolate and theorize against the plain song I like to sing. We, as an audience, are inclined to find “scientific” and “theoretical” statements very persuasive: “their sheer density seems to command respect. Yet their effect may be quite small compared with the more mundane expressions of daily life. Each of us makes explicit our postulations about the world each time we say, ‘I see a tree over there’” (Evernden 63). I fell into the project of filmmaking as a balancing point to the rest of my life as a mother where it was equally difficult to distinguish between thoughts and feelings, between objectivity and subjectivity, between facts and stories.

In this essay I will deconstruct myself as a science and nature filmmaker by 1) interrogating the historical forces behind my understandings of nature; 2) coming to terms with what I've learned about the subjectivity of textual experience and the constructed "objective realities" of science driven knowledge, and 3) by showing how I travel between the two in my own filmic style through a textual analysis of my thesis film *Lucky Star*. Within this analysis I will look at two films that I studied and used for inspiration – Agnes Varda's Les Glaneurs et La Glaneuse, *The Gleaners and I*, (2000), and Cindy Stillwell's Mating For Life (2012).

ON NATURE

Conceptual Imprisonment

If science is a story about nature, how do we define “nature” in relation to ourselves and how do we talk about nature in science films? In a class surveying the history of science films, Ronald Tobias started with the premise that “nature” is one of the messiest and most complicated words in the English language. I agree. My hometown sits in the middle of a big river valley on the western edge of the Rocky Mountains. It’s an area built around the railroad, logging and farming industries framed by the residue of a frontier mentality, Christian morals, and transitory wilderness seekers. I spent my childhood summers on the eastside of Glacier National Park guiding tourists on boat tours up and down a glacial lake day in and day out. I told the same forty-five minute narration based on what I’d heard my entire life – the story of a day in the life of an early park visitor in the pre-WWII railroad days, the effects of ice ages on geology and geography, the history of place names, and perhaps a Blackfeet Indian story. Then I’d idle the boat before the avalanche chute hoping to catch a glimpse of a grizzly bear. It was a real life blue-chip nature film. Imagine the bow-to-stern windows of the fifty-foot boat as a strip of film running down the port side and back up the starboard, nature framed by maneuvering the boat. Once the boat left the dock and crossed the shore past the camp store and the parking lot with the bow heading into the wind up the north shore, there was nothing to see but the constructed image of perfect wilderness.

I grew up inside an anachronistic *wild frame* and acted as a purveyor of this colonized, natural wonderland. A term coined by Anne McClintock, the *wild frame* is “the geographic space of the modern empire” placed in a “permanently anterior time.” The ‘purified’ image of nature “represents a time either before or beyond human beings” (14). The boat, like a camera, acts as a political and social framing tool that controls the message and the view of the landscape. Similar to most documentary nature films, the combination of a restricted image with the crafted narration paradoxically promotes the illusion of experiencing intimate details of nature while denying any real connection with wild space. It is a trip designed for tourists to visit and then move on.

In *Re-inventing Eden*, Carolyn Merchant refers to Indian removal from the newly established national parks to configure them “as vast managed gardens in which the wild was contained for viewing. People could have a wilderness experience in a protected environment” (152) without the danger of running into an Indian living there. She calls them “re-invented spaces” in managed places designed to give a predictable encounter with untouched nature where a passing visitor can find spiritual renewal. As a point of interest, the Bureau of Indian Affairs, which manages the relationship between the 566 recognized tribes and the U.S. government, is under the wing of the Department of Interior, which is responsible for the management and conservation of federal lands. Tommy Christian, a politician on the Fort Peck reservation, reminds where decisions regarding Native Americans are made, “We’re the *only* people ... that are included...under the Department of the Interior along with the eagles and the bears and the coyotes, and the wolves, well there’s Indians in there too.” Indians are still included

in the same political category and language that deals with endangered species and managed lands.

The National Park Service, like many government and corporate agencies, manages “nature” and the public enjoyment of “nature” as a resource. Parks are seen as protected nature. People from around the world flock to designated “Nature” sites to participate in suggested modes of enjoyment, much like themed amusement parks. For many tourists, their recreation confers a sense of preservation, or even salvation, to the lands they are visiting. Deconstructing the mission statement of the National Park Service is beyond the scope of this paper, but it’s important to be aware of the language of colonization inscribed by what Neil Evernden calls a “conceptual imprisonment”

(130). The mission is to:

Preserve unimpaired the natural and cultural resources and values of the national park system for the enjoyment, education, and inspiration of this and future generations. The Park Service cooperates with partners to extend the benefits of natural and cultural resource conservation and outdoor recreation throughout this country and the world. (<http://www.nps.gov/aboutus/mission.htm>)

As a young person, I felt above the language of wilderness experiences and resource management. I belonged as much as the huckleberry, as the mountain, as the music on the radio in our boat-house. The land felt a part of me, and I a part of it. In a place where I learned to ride a bike, drive a stick-shift, fall in love, take apart a boat engine, and hear opera for the first time; I also learned to trust the push and flow of ice-cold water around my calves, to follow the deer trail leading to an old garbage dump where I unearthed the remnants of blue plates and tea cups, and to inhale the sticky smell of cottonwood buds smeared around my neck. The valley was urban and wild for me,

and I did not always differentiate. I did not inhabit the valley to seek from the natural world or escape the concrete avenues; the land felt like my downtown street.

A Boastful Song

Common to people of mixed cultural families, I thread my way through both cultures without belonging to either. I'm the blond green-eyed daughter of both white America and native America. My mother is an organized, historical thinker who gracefully and methodically gardens the weeds and the flowers with the conviction of her northern New York Germanic roots. My father tends to play a game of call and response; open to the possibility of translating the intelligence of bird song into the lines of the buildings he designs. His father, my grandfather, lived a transitional, crossover life typical of his generation. He spoke only Chippewa until age six, hunted in the woods of northern Minnesota, became a WWII Marine stationed in the Pacific, and raised five kids to be more "good" than Indian. After retiring from the National Park Service, he died as a devout Catholic preferring silence to conversation, leaving most of our family's history unanswered for.

He talked occasionally about the Big Medicine ceremonies, the Mide-wi-wen, that he attended as a boy. My grandfather told me we are descended from the wolf clan. In these ceremonies, the men of the clan societies represented themselves as human and animal through the strength of their songs as proof of "spiritual competence" (Blaeser 95). Frances Densmore, a cultural anthropologist specialized in Chippewa languages, translated many of the ceremonial songs. Her translation of the song below describes a relationship with nature that defies the typical notion of object/subject:

“The Water Birds Will Alight”
Sung by Gegwe’ djiwe’binun

Surely
Upon the whole length of my form
The water birds will alight

A man “representing himself as human and fish” sang this song in a ceremonial boast (ibid). The song imagines the length of his body as a fish attracting the Manitou, the spirit, and the knowledge of the water bird. The calling in of the crane spirit through song speaks not only to the physical dependence we had on the animals for survival, but also what Chippewa linguist and writer Basil Johnston calls the need for them “as exemplars whose habits, characters, and works provide insights and knowledge that humans would not otherwise have” (95). The singing of the song was expressive of the mutual relationship with the earth that was imbedded in tribal consciousness. The songs were performed and offered as gifts and prayers in return for our well-being. It was a reciprocal exchange of mutual dependence.

These translations resist the often quick and easy interpretation of a primitive mythology. The problem is a “semiotic one, a barrier to constructing appropriate meaning and significance” (Basso 97). It comes from the obvious circumstance that the translated views articulated by the Chippewa “are informed by their experience in a culturally constituted world of objects and events which most of us are unfamiliar” (ibid). In our renditions of our natural relationships we do not consider ourselves ultimately bound biologically. Our accounts now, whether artistic, literary, scientific, or spiritual, depict nature simply as inspiring us, “their effects primarily internal than external or involving actual physical survival” (Blaeser 96).

I often wonder what sort of world my grandfather transitioned out of. He told me fragments in a few seemingly disconnected sentences from the moment at hand while sitting in his living room watching TV. Then we would be in silence again, with no further discussion or deeper meaning assigned. My grandfather wasn't the kind of man to be pressed for details. To "milk someone" of their knowledge by asking questions is considered disrespectful. The Indian way is the exact opposite of how things are done in our schools where the kids who raise their hands are praised for their inquisitiveness. I once heard Vernon Finley, a Kutenai teacher, talk about this. He said it takes a whole lifetime for people to become elders, and they don't owe you any of their knowledge. If you present yourself in a respectful way, maybe then they will teach you, but they don't owe it to you. My grandfather's only quiet insistence was that all of us grandkids remember our lineage as Anishanaabe, as Chippewa.

I've spent a lot of time trying to figure out how to respect this memory of being Anishanaabe, while also being a scientist and an artist and a mother. It has to do with finding and renewing relationships of reciprocity where, "...so we won't we die. Neither will mother earth" (Awiakta xvi). In concrete terms, how as a scientist and a filmmaker can I use the tools of my craft – camera, computer, software, interviews, light – to articulate relationships to the natural world like a "boastful song" sung, leaving space for a response, or an awareness; rather than forcing an expected or desired answer to fit into a singular definition, or a truth-claim from an "objective" viewpoint? My work cannot simply be a constant striving to attain the correct answer through our particular culture's

systematic asking of questions. To be present and patient for the reception of knowledge through the distance of time is a clue my grandfather gave me.

Stuart Firestein, a neuroscientist at Columbia University, relates this awareness back to science, talking about how ignorance drives knowledge.

Science, then, is not like the onion in the often-used analogy of stripping away layer after layer to get at some core, central, fundamental truth. Rather it's like the magic well: no matter how many buckets of water you remove, there's always another one to be had. Or even better, it's like the widening ripples on the surface of a pond, the ever larger circumference in touch with more and more of what's outside the circle, the unknown. This growing forefront is where science occurs... It is a mistake to bob around in the circle of facts instead of riding the wave to the great expanse lying outside the circle (qtd. in Popova).

On Nature Narratives

Natural history films owe a great deal of their DNA to the empirical traditions recorded in natural history field journals. The famed field journals of Darwin, and Lewis and Clark, and other pioneer naturalists gave us incredible historical records detailing weather, vegetation, maps, landmarks, species accounts, gender relations, courtship rituals, migration patterns, and a rich day-to-day commentary of life captured through a veil of factual accounting. An overview of this tradition shows its influence on the narration style common to science and nature films today. The audio tracks in nature films often play second fiddle to the dynamism of stunning visuals. The definitive tone and matter-of-fact reporting of voice-over narrations carry an air of authority that remains unquestioned by the audience. The disembodied voice delivers the message of Western science as savior and knower of objective reality.

I was instructed in the practice of keeping a daily field journal by ornithology and evolutionary ecology professor Steve Herman, who wrote, The Naturalist's Field Journal: a Manual of Instruction Based on a System Established by Joseph Grinnell. Joseph Grinnell was a vertebrate zoologist and the first director of the Museum of Vertebrate Zoology in Berkeley until 1908. The Grinnell system was for the serious naturalist, “the naturalist who is concerned about the need to bring order, precision and accuracy to field observations” (Herman v).

Herman questioned the relevance of the handwritten field journal that originated when travel was by foot, horse, or ship, and the methods of species capture were by gun or net. As the camera replaced the gun as an instrument to record, and field methods evolved to track animals by plane and satellite, Herman wondered, “who was left to sit down at the end of the day and scratch notes ... with a quill pen and India ink?” That question left unanswered, his enthusiasm for the rigor and self-discipline outlined by the Grinnell system defined exceptional fieldwork and science, because “no record kept in the head can be as accurate or as precise as one in writing” (6,7). The assumptions in this statement are a bias of our scientific instincts. Accuracy and precision of written language equates to a heightened understanding of an object observed; the written record has validity higher than memory or oral record.

At first read, the species accounts are dull, dry and repetitive. It's hard to get the flow of them and want to keep reading, but over time a pattern emerges and they flow with a logic and simplicity in their focus on behavior defined through season, location, number, direction of travel, pairing, plumage, coloration, and movement. To do science is

to seek out patterns to make connections and draw conclusions about the world around us. Our ability to synthesize and analyze the patterns combined with ingenuity and imagination to problem-solve our existence is evident. After years of keeping a field journal, I question to what end do our honest observations and accurate logic lead, and by whose definition of honesty and logic?

Reflecting back to Neil Evernden's conceptual imprisonment, the process of the growing control of Nature arises from the possessive language of our categorization of the natural world. The process of the Grinnell system of journaling trained one's eyes to see the objects of the world, not with "fellow-feeling, but through the eyes of a stranger" (Evernden 85). Unlike an ethic of relationship moving from a sense of human reciprocity with the natural world, "the empirical scientist 'treats nature as an invading army treats an occupied country, mixing as little as possible with the inhabitants.'" The language is purely descriptive and decidedly neutral. The objects of nature are diminished, "from receptacles of meaning to empty images for inspection" (ibid).

Scientific expeditions in the era of quill and India ink were an important, albeit a small part of much larger "age of discovery" expeditions, which served to expand the Western colonial empires. It was a hunt for knowledge. The scientists and naturalists who did the "hunting" were under the control and direction of the oligarchs who held the power and purses of Europe and America. To control a territory, one must catalogue and re-name what is within the territory. This doesn't imply that scientific expeditions then or now have malice or power in their hearts, but it does connect their work with the colonial project.

Is a power to control inherent in the type of knowledge we seek in nature? From the *Social Construction of Nature*:

Such knowledge, however benignly applied, must inevitably extend our control over nonhuman others...even though our explanations of biological functioning may be employed to sustain the remnants of a fading species...and thereby provide us the satisfaction of having 'saved' one kind of being, the knowledge employed entails the diminishment of that other...(S)uccessful control over the life and death of the other requires the abrogation of its autonomy...Hence, 'when the last of the (California) condors was captured, society suffered a loss – the loss of the wild condor. But something else achieved a victory. The winner was biology. It confirmed its right to define for us what a bird is (130).

Donna Haraway reminds us, "Biology has intrinsically been a branch of political discourse, not a compendium of objective truth. Further, simply noting such a connection between biological and political/economic discourse is not a good argument for dismissing such biological arguments as bad science or mere ideology.' ... (S)ocietal and historical contexts are just as much a part of science as the scientific question itself...Knowing that science is infused with human position" (cited in Graziano 11), the challenge is understanding the relationship between the scientific text and the reader of the text.

The distant tone of these scientific journal entries entered directly into the realm of the science film, narrated via the normative and often-maligned "white male scientist." These narrations, however charismatically read, confer objectivity from an empowered position characteristic of the scientific process. The closed narration is fixed over the text of the film. The relationship between the viewer and the text is telling, "restricting a space for the viewer to interpret the image" (13). A brief clip of Sir David Attenborough narrating a piece on the mating habits of birds, in the BBC's *Life of Birds* series shows

the correlation between the language of a scientific journal writing and of science film narration.

The buff-breasted sandpiper – no spectacular plumes for him. But nonetheless, he has quite an attractive armpit. Flashes like these can be seen a good 200 yards away. A female has got the message. She’s definitely interested. Now there are three females. It’s time to reveal all. He reinforces his appeal with quiet clicking calls. More and more females arrive... (Salisbury 1998).

It’s hard not to love David Attenborough. He’s charming and witty and when watching a BBC production with his voice at the helm, I feel the whole world is made understandable through his voice. And that’s exactly the point of “closed narration”. We are left feeling full of accurate and objective information without having to question or consider another perspective to the visual text. The precision of observation is read with a poetic breathlessness. Species, plumage, a male display, the female responds, distance, proximity, numbers, and courtship. Like a tourist on a narrated boat cruise, we hear a crafted script read over the *wild frame*, the frame we use to heal our isolation and lack of connection to others and wildness. The intimacy of the animals’ behaviors seen up close, “to reveal all,” leaves little room to think otherwise. Nature has been explained and contained. Satisfied, most of us move on to the next thing.

Whether as scientists, educators, or parents - people in a position to broker or mediate knowledge can exploit this role. The classic motto of any successful teaching is to inspire not instruct. The receipt of the message, with its character and intended content intact, is an act of faith that cannot be proscribed. We have to break ourselves of the habit of thinking we can expect people to believe and think by tightly controlling the language of transmittal. Evernden writes of English nature writer and poet, Richard Jeffries, who

after a lifetime of studying the animals he loved, concluded that it was impossible to “know” nature, and by doing so he “released himself from a lifelong deceit.” The deceit is that naming and knowledge “delimits what a creature” or the world may be (129).

To contemplate actually *letting something be* is very nearly beyond our ability. Perhaps it will remain so. But we must bear in mind that *every* act of control, however well intentioned, constitutes a continuation and an amplification of the process that has been unfolding since the Renaissance...Soon, the wild meadow withered, and the hiding places of willfulness and caprice were desiccated. In a desert, the whole expanse is ours to survey and order, and mystery is dissipated (130).

When giving boat tours, at first I loved those passengers who appeared to be listening attentively, their eyes carefully following the pointed narration. Then I grew tired of their compliance, and admired the ones instead who stepped out on to the bow of the boat with the wind and the spray buffeting them as they strained to feel the sun on their faces.

RECIPROCITY OF EXCHANGE

Reader Response Theory

Walter Benjamin was but the first in a line of film theorists, literary critics, and cultural translators from whom I learned to spin the prism to reflect on the ways and means of film. What Walter Metz conveyed through his obsessive love of cinema and interdisciplinary experimentations, was an encouragement to become a better film spectator as well as an emotionally and critically thoughtful filmmaker. Regardless if the content was science or art, documentary or fiction.

Wolfgang Iser, a German literary scholar, stresses that in the phenomenological theory of art, equal weight is given to the actual text and the act of reading itself (50). The realization of any work lies somewhere in-between the artistic choices of the creator of the text and the aesthetic understandings made by the reader. He specifically speaks of literary texts but I would apply his ideas to all works that can be read as texts, including film. Iser reflects back to Laurence Sterne, a failed Irish clergy turned comic novelist, “no author, who understands the just boundaries of decorum and good breeding, would presume to think all: The truest respect is halve this matter amicable, and leave him something to imagine, in his turn, as well as yourself” (51). The reader must be given something to imagine, engaging with a field of play to reflect on, to anticipate the next sentence or image. The parts that are unwritten must be filled in by our imaginings and thus pulls us deeper into the reading and can reflect a richer meaning to the text than was intended. No single reading can ever exhaust the meaning of a text, or single viewing of a

film. There is an intimacy here. George Poulet, a Belgian literary critic, calls the “text a magical object that allows the interiority of one human being to play host to the interiority of another” (Tomkins xiv). The relationship between the writer and the reader of a text, the maker and the viewer of a film, works with an understanding of this reciprocity. It is very much an exchange - an exchange of ideas, an exchange of visions, and an exchange of gifts.

Close readings of films considering Roland Barthes’ codes, or voices, of textual analysis make it possible to wring meaning from the text. “To interpret a text is not to give it a (more or less justified, more or less free) meaning but on the contrary to appreciate what *plural* constitutes it.” (Barthes 4) There is always more than one way to read a text. To understand that plurality we need to read and re-read, and then re-read it again. These close multiple readings allow us to work meaning that “is constructed as ‘a kind of ideological bridge’ in the interaction between the author and the reader (Bhaskar 391).

As documentary filmmakers, it is not enough to understand how the stories we tell are constructed and what effects they have on people, but to understand why they have that effect. The messages that narratives carry are:

...(P)owerful and evocative because they touch a deeper substratum of chords in a culture that, once touched, resonate with a multiplicity of implications that interpretation articulates. Comprehension and interpretation are thus closely imbricated, precisely because the meanings they deal with cannot be schismatically separated from each other (Bhaskar 392).

Examining messages and texts as a style of an individual and through the layers of a “broad cultural and ideological milieu” (Lesage 476) reinforces what I feel about

making and understanding manifold meanings from my background in evolutionary ecology, natural history writing, making art and sculpture. These codes “are bound by the heavy weight of convention and tradition – centuries of ‘what’s already been written and done.” Read together they form a “nebula” of significance (480). We are a “mash-up of what we allow into our lives” - the knowledge we are imparted or discover, and what is infused into us through living in a particular time and place (Kleon 10).

Science As Practice and Culture

The long and winding path of Western science as a systemized study of objective knowledge to test theory and unveil truths is a beautiful and imperfect project. In the same decade Barthes was breaking down his semiotic codes, there was a similar emergence in thinking about the construction of science knowledge. The sociology of scientific knowledge, SSK for short, insisted that science was a social product down into its technical core. In *Laboratory Life*, by Bruno LaTour and Steve Woolgar, the two studied the details of the social aspects of science production in a lab as an anthropological site (40). Through empirical methods, they observed and accounted for the most intimate of aspects of fact construction. These were the early days of SSK - of seeing the agency of scientists as actors and the “instrumental aspect of scientific knowledge” as unique extensions of culture (Pickering 4). “Scientific knowledge has to be seen, not as the transparent representation of nature, but rather as knowledge relative to a particular culture, with this relativity specified through a sociological concept of interest” (5). Science is expressed through the cultural output of instruments.

The dominance of science as the best method to express objective and reliable knowledge is endlessly debatable because of what Donna Haraway calls the “slippery ambiguities of the words ‘objectivity’ and ‘science’” (252). When these ambiguities are paved over by history, the trope of the progressive image of Western science as a voice of reason and sanity de-centers “Other” science and knowledge systems as subservient to the audience. All trajectories of knowledge (including the dominant one) begin as local knowledge and all believe that their local version is the truth. The dominant Western system of understanding science is simply a “globalized version of a very local and parochial tradition. Emerging from a dominating and colonizing culture, modern knowledge systems are themselves colonizing” (Shiva 9).

Haraway examines the role of vision in this discourse and the trouble of scientific objectivity and indifference. She critiques the visioning practices of science, “tied to militarism, capitalism, colonialism, and male supremacy,” that have leapt out of the body into “a conquering gaze from nowhere” (253). The compartmentalized niches of scientific visioning practices are increasingly a limitless consumption enhanced by:

(S)onography systems, magnetic resonance imaginings, artificial intelligence-linked graphic manipulation systems, scanning electron microscopes, computed tomography scanners, colour-enhancement techniques, satellite surveillance systems, home and office video display terminals, cameras for every purpose from filming the mucous membrane lining the gut cavity of a marine worm living in the vent gases on a fault between continental plates to mapping a planetary hemisphere elsewhere in the solar system (253).

To what end are these envisionings? By visually totalizing the deep recesses of the ocean, animal guts, and star systems does science imagine it has achieved observational control of the empire? She suggests that vision from a particular embodied

view (and she includes nonhuman embodiments and technological mediation) is a way to construct a usable doctrine of objectivity. Haraway never allows objectivity to be innocent. By situating our visioning practices back into a body placed in time and space we are responsible and answerable “for what we learn how to see” through “partial perspective (...) from below the brilliant space platforms of the powerful” (254-255).

With this in mind, as image-makers, we have to consider by whose vision of science we are communicating, and by what methods of our own technological visioning and splicing we are creating. We have to pay attention to the content we capture and transmit, and de-code the intention behind the imaging. Filming the gut cavity of the marine worm will never allow us to see the world from its perspective. It only gives us a highly detailed picture of how a particular organism has organized its life. A stance of partial perspective in our work implies an empathic connection with our subject matter. Instead of seeing all, we see it’s possible to look from another knowledge system. Sharon Traweek, an historian and anthropologist of science from UCLA, puts it this way:

I’m not suggesting that we abandon our niches, only that we be more conscious of the limits of our little terrains so we occasionally can, with the proper visas, passports, and adaptor plugs, learn to cross those borders to discuss our different versions of what I still presume to be our shared concerns (444).

Narrative Chance

In his book *Crossing Open Ground*, Barry Lopez talks about narrative and landscape. He was listening to a group of Nunamiut hunters from up in Alaska by the fire one night telling stories, and someone told a story about a wolverine he was tracking in the snow. The hunter followed the wolverine by snow machine up and over through a

valley. The wolverine would get ahead, and then pause for the hunter to catch up, looking back at him from a rise, and then would take off again. The wolverine did this several times, until the hunter came over another rise and the wolverine leaped at him, knocked him off his snow machine, and fixed a stare at the man without injuring him at all. Then the wolverine walked away. The hunter thought about reaching for his gun, but did not (62).

There are at least two exchanges in this narrative. One is the exchange between the storyteller and the men sitting around the fire; the other is this moment between the hunter and the wolverine. In both exchanges there is mystery and they relate to each other in perhaps a third exchange; the exchange between the interior landscape of a person and the exterior landscapes. There is magic in hearing a well-told tale around a campfire. The fire itself acts as a medium, a softened and flickering border between the tale being told and the ears listening and the eyes watching. The wolverine story was told, “not so much making a point as evoking something about the contact with wild animals that would never be completely understood” (63). Stories do not claim to be the truth; a story is told for its own sake. But as we take the story inside of us, it plays up against our understandings of the natural laws and tendencies of nature that are beyond human control. The wolverine story contains “an integrity that is beyond human analysis and unimpeachable” (Lopez 66).

There is a possibility of what Gerald Vizenor calls *narrative chance*. Vizenor is an Anishanaabe writer and theorist and teacher whose work reflects a nature that has never quite separated from self or culture. Narrative chance is the possibility of creative

play between the speaker and the audience, the writer and the reader (Hawley 96).

Vizenor wants to return to a language that relates not represents.

What happened between the wolverine and the hunter in that stare? Later on Lopez dissected the story to pull out details of the biology and ecology of the wolverine. He sent his findings to a friend studying wolverine in Canada living with the Cree to see if they (the Cree) could relate to the insights of the Nunamiut story. His friend said the Cree responded, "That could happen." Lopez focuses on the courtesy of the Cree toward the Nunamiut story, and considers "the dignity that is ours when we cease to demand the truth" and that the best guide to truth can be found in a compelling narrative (Lopez 77). Vizenor writes, "there can never be a 'correct' or 'objective' reading of the text or the tropes in tribal literature, only more energetic, interesting, and pleasurable misreadings" (5).

There is a Coyote story that goes like this. Coyote was going along up and over the hills and he saw an old man throwing his eyeballs out of his head up to a cottonwood tree. The eyeballs would hang there and look over everything. Then the old man would tell his eyeballs to come back, and they would come back inside his head. Coyote wanted to learn how to do this, so he begged and begged the old man to teach him. The old man did, but he warned Coyote to be careful that he could not do it more than four times in a day. Coyote said, "Of course not, why would I ever do that?"

When the old man left, Coyote threw his eyeballs out up over the trees and he could see for miles. He could see everything. After he did this four times, he thought to himself: That old man doesn't know this country, those rules are only for his country, and

they do not apply to me. So he threw his eyes out again way up into the cottonwood tree. When he called out for them, they remained in the tree. Coyote stumbled around blindly, calling out for his eyes, and finally fell asleep.

A mouse thinking he was dead began to take some of Coyote's hair for a nest. Coyote lay there and caught the mouse in his mouth and demanded that the mouse look for his eyes. The mouse said, "Yes, I see them up there in the tree, swollen and oozing with flies all over them." Coyote ordered the mouse to give him one of his eyes. The mouse did this and Coyote shoved the little eye way into his socket. He could see a little now, but he had to look from an odd angle to see. He was stumbling around the cottonwoods and ran into a buffalo. The buffalo asked him what was wrong and Coyote told his story. He took pity on Coyote and gave him one of his eyes. He squeezed that eye into the other socket. It hung out a little, bent down to one side. And Coyote took off on his way.

This eye-juggler story can be read a lot of different ways. At its most basic level, it is a funny story to watch Coyote do something we know he is not supposed to do. The desire to see beyond the confines of our own particular boundary with omniscience is common. Haraway's "conquering gaze from nowhere" is a power play that this Coyote story warns us about. He broke the social conventions and territory of the group and was left with partial and compromised vision. Coyote ought to know better; he should not have done it more than four times, but he did. So, the listeners then get vicarious pleasure from watching his selfish behavior get the best of him, but they also get to fantasize a little bit about what Coyote saw from way up high in the tree.

I was first told this story while attending instructional training at the Blackfeet Community College as part of a lesson to understand how to teach. Teaching styles on the reservation are different from those on the outside. Sometimes as teachers we have a lot of ego about what we know, what we have read in books and theories, and we have expectations of what we want students to see and “get” from our lessons. This story was told as a curative to this kind of thinking, that our objective book-learned knowledge is an “eye disease” – a problem of vision (Hyde 12). It is easy to moralize based upon our carefully constructed frameworks of knowledge and experiences, and attach pointed dogma for others to understand a specific position. Stories like the wolverine story and Coyote stories open up possibilities for us as science tellers to consider the listener as having a vital role in building upon knowledge. The play of narrative chance means that no one can tell the whole story.

A CRITIQUE OF MY WORK

Textual Analysis of *Lucky Star* as Writer and Reader

I spent the summer of 2012 in Glacier Park with my son as an artist-in-residence for the National Park Service along the shores of Lake McDonald. The Park Service suggested a film on huckleberries because they wanted a loosely poetic, yet expository film about something iconic to the area. It was huckleberries for other reasons too. It was July and berries were just ripening, and they were a topic my son could come along with for the filmic ride. They are sensual, round, and purple - perfectly tart with just enough sweet. They are common and generous. I was most intrigued by the relationship between the mystery of their wildness and the secrecy of pickers. Aside from the usual taxonomy and botanical distribution research based on weather, geography, and reproduction, the bulk of scientific discourse on huckleberries centers the attempt to domesticate them in a lab or nursery environment. To my knowledge, no one has been successful. The social history is rich, and the urge to domesticate the delicacy makes economic sense, as the huckleberry trade is a big local business. I borrowed (with permission) the title for my film from a poem by working class poet, Pete Zarzynski, *Say Huckleberry, But Keep Your Lucky Star Secret*.

The film is deliberately ambiguous, circling around from the beginning to the end from treeline to treeline. The opening shot is a slow-moving pan of a silhouetted tree-lined hillside that cuts to my son showing the camera/me a berry with his purple stained fingers. *Lucky Star* is introduced slowly to bring the audience away from the predictive

speed of fast cuts that signal the film will lead to any quick conclusions. It takes hours to pick a gallon of huckleberries. Some days you might walk home with an empty bucket. Even the most casual of pickers falls into becoming a stooped meandering wanderer slowing down the pace of time, fingers and eyes searching for a few berries to shove in her mouth while on the way to somewhere else.

As I stated in the introduction, I come to filmmaking as a mother. The opening shot of my son shows him in extreme close-up the way that he exists in my life. His presence infiltrates the bedrock of my imaginings, my time and my space. He is the flesh of my body grown in part like a biological imperative to carry on my genes. Like a huckleberry grown to be eaten, he exists as the purpose of my days and a foil to what I think I might be doing otherwise. Throughout *Lucky Star*, my son appears to remind both me, as the filmmaker, and the audience that he is a part of the construction of the film. He informs our huckleberry knowledge as much as the pickers and scientists do. I self-consciously chose to narrate the film to question myself as a mother and a scientist. The film is a quest to find huckleberries not as scientific fact, rather as a wild presence through our human interactions with them.

Lucky Star is a self-reflexive journey and essay film in the tradition of Agnes Varda's *The Gleaners and I* and Cindy Stillwell's *Mating For Life*. In Varda's film she meditates on the history of gleaning from the harvest while reflecting on her own aging body gleaning images of herself with a digital camera. In Stillwell's film, she looks at the migration and monogamous mating habits of Sandhill Cranes as a metaphor for her journey to understand why she has not married or had children.

The film cuts to series of berry close-ups as the narration questions the taxonomy of a huckleberry. These shots act as the equivalent to the naturalist's journal entry focusing on the extreme detail of a berry via the omniscient eye, while I position myself as a local insider calling all truth claims "an outright lie." This sends the viewer straight to the "complaint department" where Huckleberry Jack traffics in berries to the roadside tourists, convincing them to buy because of their special power to grant long life; and sets huckleberries up in the culture of consumption and commerce. But the tourists also have something to offer the seller. She is a good pie baker, and so I entertain the possibility of renegotiating the terms of the sale through trade. I elevate the value of the huckleberry beyond mere foodstuff on the table. After tasting her first berry, the lady tourist translates their wild taste into the idea of a pie. Baking a pie is about sharing. A pie is never for one person. It is an empathic moment between the tourist couple and the local fruit seller; they open a chance to need each other through a communal berry offering. I give the travelers a voice to respond to what they are told/sold, simultaneously hoping to give the audience of my film permission to respond to the film. I leave the door open for my audience to not be passive viewers, but rather to consider the exchanges as a possibility of narrative chance.

Berries grow to be eaten. They are a natural gift given in exchange for spreading their seed, a reproductive strategy operating on reciprocal exchange. People who grew up picking berries with their families did so to collect them as food to store throughout the winter, to savor the abundance of summer, and to give them away as gifts. It was a family endeavor to pick berries together, but it was also a chore. Joanne, the jam maker, and her

sisters could not go play until they had each filled a one-gallon bucket of berries. It is not easy work to pick a days worth of berries, and then to clean and sort them in order to make jam to give away is an act of love. I deliberately ask Joanne the taboo question of “where the berries are” - to cross the etiquette line and get an easy clue to where the big berries are without having to pay my dues.

I expect the rebuff, and while Joanne laughs at my breach of etiquette, two ravens talk in a tree, one flying off as if scolded by the other. Throughout the film are short cuts to raven, spider, and coyote as a symbolic gesture to a trickster spirit. Trickster is a boundary crosser common to tribal culture. At his core, he subverts the order of the way things are by looking for and creating opportunity to satisfy his insatiable appetite. “The trickster myth derives creative intelligence from appetite. It begins with a being whose main concern is getting fed and ends with the same being grown mentally swift, adept at creating and unmasking deceit, proficient at hiding his tracks and at seeing through devices used by others to hide theirs” (Hyde 17). This is not unlike the task of SSK to examine and reveal the orthodoxy of truth claims in science, or Barthes’ codes to unveiling textually meaning. “Every group has its edge, its sense of in and out, and the trickster is always there, at the gates of the city” and life (7). Trickster makes sure there is commerce across the boundaries that any given group articulates their social life. The huckleberry has never left the realm of the wild. They cannot be bought in grocery stores. You have to find them yourself or get them from someone else who has already picked them. The need to satisfy our taste for berries keeps my son and I on the journey; it is the hunger that propels the movement that keeps us traveling along.

Dawn LaFleur speaks to the heart of my huckleberry interest as a botanist, a mother, and an avid picker. When asked why the huckleberry has not been domesticated like its relative the blueberry, she starts from a position of not knowing, and then expands the conversation to explore the very nature of the soil. The likely theory rests in the role of *mycorrhizae*, a fungal mat in the soil that exists as the literal embodiment of the ‘web of life’. The *mycorrhizae* seem to be the essential link in the soil transferring water, mineral, protecting the roots from bacterial infection, and exchanging energy from the root. The mystery of the huckleberry rests in the partially unknowable ‘web’ embedded in the soil. Dawn says, “I think that’s just so cool.” She responds to the limit of our scientific understandings with an attitude of joy, working at the point of contact that is not fully understood.

Dawn presents herself well in her various roles. As a scientist she relates her work and knowledge with the integrity and precisely tested language of a field botanist, carefully threading between what the lab work has borne out and speculating on the unknown. As a long time government employee she uses the colonizing language of nature as resource. As a huckleberry picker from the area, she articulates the connection we have to huckleberries as animals.

The theory of *mycorrhizae* takes me back to the beginning. The Earthdiver is a common tribal myth. In the Anishanaabe version, the trickster Nana’boozoo has unleashed a world flood by his own foolish ways. Half-spirit, half human, he symbolized all humankind. Holding on to a raft, with the water rising, he desperately begs the animals to dive down to the bottom of the water to “fetch a pawful of earth to stave off

death. Without the animals, he would die; with them, he lived” (Blaeser 95). The otter tries and fails, the beaver tries and fails, and finally the muskrat swims down and brings up a tiny bit of soil. From this pawful, Nana’boozoo throws them around to create islands, which grow and re-create the earth. The answer to re-creating earth was deep in the soil. Perhaps these old stories carry in them that awareness of the rich interconnected knowledge embedded in the very dirt of the land. The world resists being reduced to matter or resource quite possibly because it cannot be broken down. I leave Dawn, as she tries to sum up huckleberries. “From a scientist point of view they are such a fascinating plant, but from a human perspective” -- as she clutches at her heart – “they are such an important component how we relate to this landscape.” The moment she finished that comment, the door banged open, and our sons who had been fishing outside trooped in to announce they were out of worms and they were also hungry.

Mating For Life and The Gleaners and I

I want to consider my decision to include myself in *Lucky Star* in a self-reflective gesture by looking at Cindy Stillwell and Agnes Varda’s films to find similarities and connections to my project. *Mating for Life* (2012) is an experimental film that is part first person essay and part natural history of the Sandhill Crane. I connect with it primarily in an emotional way. The images are soft, which I find refreshing in an era of high-definition edginess. Stillwell combines handheld super 8, 16 mm, and HD footage, along with an illuminated hand-drawn map creating an effect that is sculptural. She opens with medium shots of cranes in flight coming in for landings in the silvery wetlands and farm fields along the Platte River, while the narration describes their “perennially

monogamous” mating habits. In a cut to her setting up a bird blind in the wind, she reveals that she has never mated for life. The camera takes us inside the bird blind zipped in with the filmmaker. Bird blinds are used for hunters and birders to observe birds while remaining unseen, but *Mating for Life* reverses this vision. The external world of the birds we have been set-up to watch disappear, taking us into her internal dialogue and world. Her narration asks while she looks at the camera, “What have I been doing for forty years?” The tone of the narration is calm and matter-of-fact.

Similarly, in *Lucky Star*, I imprint myself as the filmmaker and as a character through self-reflexive narration and imagery. Leaving Joanne the jam-maker’s house, the road appears through a broken windshield and my long shadow is shown walking down the trail, as traveler contemplating my place in life, worried about raising my son, worried about money, fearful of simply being enough to call my work successful. That shot fixes my shadow – my interior self full of emotion and intellect and spirit – onto the dirt of the trail leading through the woods – the exterior world of the natural processes of the shape and lie of the land.

The self-reflexivity informs the audience that the film is being made by a real person bound by humble fears and life choices, similar to the ones that track us all. The social construction of the film, like the social construction of scientific facts, reads that the object of my vision is only as large or as small as my ability to navigate my interior and exterior worlds. In other words, the footage I captured is filtered by the embodiment of my perspectives. My abilities to film were temporarily broken and limited through the particulars of my common human drift, and the narration, which puts my longing to stay

with Joanne as an older and wiser woman than myself, is a call out to the audience to connect with me through a glimpse of the interior world behind the camera.

Stillwell connects her journey in *Mating for Life* to the cranes and to other people who have gone before her. In a scene along a viewing platform a group of people look at the cranes through binoculars. Stillwell focuses her camera on the people watching cranes, on an older woman in a red coat and glasses standing next to her binocularized husband. The old woman turns to regard the camera and then with a moment of discomfort, she looks away. This shot moves through many layers of visioning that interrogates the way humans look at animals, and the way we look at each other to understand and judge what we see. In the tradition of nature films the camera can look at non-human animals, but to look at an unsuspecting human begins to infringe on the interior world or “soul” of another.

Mating for Life uses a hand-drawn and painted map to guide the filmmaker’s journey. We think of maps representing authoritative shorthand to what a landscape looks like. Maps are cultural tools representing power and geography. Visual clues, keyed in through weight of line and color, indicate a truthfulness of its representation to what is really there. North is up, one inch equals one mile, and relief lines indicate elevation. Stillwell’s map is not to scale and it moves around the frame, written upon as it goes, and jumping in small increments. It is painted in a rich green and yellow watercolor and Stillwell’s hands are silhouetted on the map imprinting her self into the creation of the map and what it represents. The map does show a rough idea of the scale and distance and direction of the journey, but its looseness alludes to the maker as much as the land. In

Lucky Star there is a shot of a small house spider crawling across a detailed topographical map of my huckleberry terrain. This was the very map I used growing up to explore the mountains and valleys of my home. Earlier in *Lucky Star*, while my son is skipping down the trail I say, “The distances we mark off on a trail are an insult to perception.” The real life spider can cross the map at will, showing it is in fact just a representation of the land. A map is shorthand. Despite the precision and accuracy of its marks, it can never define a land.

Les Glaneurs et la Glaneuse, or *The Gleaners and I* (2000), is a fragmented documentary with a free-form nature that focuses on Varda's interactions with gleaners who live in the French countryside. The film is an essay on all types of gleaning, the ordinary people who collect the extra fruit and vegetables leftover from the harvest, to her curiosity about the urban gleaners, the marginalized people scraping off the excess of modern abundance. The film follows her journey throughout the countryside with her small digital camera, which is new technology at the time. She uses the portability and ease and excess of shooting with digital and thinks about the extravagance of imagery that it allows us to collect and re-use images. She makes connections to filmmaking as gleaning, and with a high level of self-reflexivity she turns the camera on herself to explore connections between “gleaning, filmmaking and the fragility of life” (Rosello 33). She films what is supposed to be thrown out or forgotten - the rot, the imperfect, the people and images we push out of sight.

One particular scene fascinates me and I considered Varda's imagery and tone of self-reflexive behavior in the making of my film. Varda takes us from a woman

wandering the potato fields to find the history of gleaning as it is recorded in art. She travels north on truck-filled highway, to find a Jules Breton painting in the Museum of Arras of a peasant woman standing alone with her day's harvest. Varda poses besides the actual painting, holding a bundle of wheat as if a gleaner herself walking in from a hard days work, but then she drops the wheat instead to pick up her real instrument of gleaning, the camera. While waxing poetic about the possibilities of digital images, she turns the camera on herself. In one moving voyeuristic sequence she sits in front of the mirror brushing her hair in close-up to reveal the gray roots of her dyed hair. It shows her body not through the stereotypical gaze of a young woman looking at herself through the cultural definition of female beauty, but the reality of herself in old age with wrinkled hands full of brown age spots. With our modern visualizing techniques and obsession with youth, most media hides us from the inevitability of aging and what is appropriate for the beauty and role of a woman. Varda's narrates over herself brushing her hair that, "it's not O rage, not O despair, it's not old age, my enemy. It might even be old age, my friend." She chooses not to equate old age and beauty; her camera refuses to objectify beauty to the loss of what is normally hidden. Varda is "interested in her search for new visual and narrative grammars of old age" (34). She stops short of narcissism and self-obsession, leaving a shot of her aging hands tilting back up to the road where she continues her journey of gleaning.

Lucky Star connects to Varda's *Gleaners and I* in that they both look at people bending over, stooped in relationship to the land looking for food. Stooping is a humbling gesture. To bend down before the leftovers of the harvest shows a reliance and

connection to the land. Varda shows images from old paintings of women gleaning as a hard but enjoyable communal activity, all hunched over in their private spaces staring down to the earth to pick up something. A café owner comments, “Stooping has not disappeared from our society.” Varda’s camera doesn’t romanticize the stooped gleaners but it does pity them. In her journey she is aware that she doesn’t have to glean out of necessity but finds a connection with them as a gleaner with her camera and relates with her touching skills and matter-of-factness in her interviews. Gleaning has changed from a communal activity of women, to gleaning out of chance.

Huckleberry picking as a human activity differs from gleaning in that wild berries are not a harvestable crop. Their purpose is to be picked and eaten by animals, primarily non-human animals. We glean from patches picked over by squirrels and birds, and raked over by bears. The natural boom and bust cycle of berry production, the difficulty of accessing them and their undomesticated wildness creates the huckleberry culture of secrecy. The territoriality of berry pickers sets the line between insiders and outsiders, and who is allowed to pick where.

It took a long time for me to find a commercial picker who was willing to talk with me on camera. In the tradition of gleaning, pickers tend to come from the margins of the society scraping together rent money gallon-by-gallon, selling to tourists or small-scale distributors. The rate of unemployment is high in this huckleberry territory with few jobs outside of tourism. My son and I had waited for hours for Gery Monk, the picker, to show up. I feel the most tenderness for Gery as an interview subject. He was earnest and picked upon in a tough local crowd of sarcasm and distrust. While he sorts his berries,

picking the stems and leaves from his bounty, disembodied voices respond alongside his interview. A drunken man and woman pulled up front row seats to watch the interview for entertainment, and they participated from off camera throwing in their two cents like Brecht's theater of disruption. As Gery told me everything I needed to know, the drunks commented from the peanut gallery both adding to and corrupting the huckleberry story. Mikhail Bakhtin refers to the "necessary relation of any utterance to other utterances" that is rooted in our social and cultural life, and the history of our meanings relates to Barthes' statement "alongside each utterance...offstage voices can be heard" (Bhaskar 392).

Successes and Failures

I can count the projects I have worked on in two or three handfuls. I am only beginning to find comfort with the project of science and documentary filmmaking. By chance I jumped into line, and I am just starting to understand how it fits into my life. The process of learning filmmaking became a bridge to carry me from a difficult situation back to considering the possibilities of re-making my life by re-visioning how to see. Documentary filmmaking works for me as exploratory tool to sharpen my awareness and share my understandings, like writing or sculpture or being a mother. *Lucky Star* as a natural history film has been a two-year patchwork project that succeeds by the strength of its humble imagery and editing, the courage of its narration, and its connections to situated knowledge. The failures of the film lie in weaknesses of pre-production, lack of budget, and lack of collaboration.

It is always easier to see the failures so I will start there. The editing of the film suffered from lack of a cohesive story arc. I tend to pull in and create as I go along, which allows for improvisation but weakens the structure to hang the film on. I am a generalist by nature, a good skill to have in an *uber*-specialized world. In my filmmaking, this makes me a good collector of information and grist for the mill. I see connection between the output of art and science, and tend to be expansive rather than constrictive in my thinking and feeling for a subject. My treatment for the film lacked precision. It reads like a poem touching on the essence of what I wanted, but never outlined the details of shot selection and narration. I followed a thread, but it shifted with the wind and the prevailing conversation. I overshot, over-interviewed, and thoroughly researched my way through pre-production, but failed to synthesize the expansion down to a solid narrative. Conversationally and intellectually, my thinking tends to jump over connection points that clarify and announce themselves. In other words, I skip steps and find it difficult to outline a visual narrative.

Walter Metz showed an East Asian film called *Perfumed Nightmare* by Kidlat Tahimik as an example of low-to-no budget film. Brechtian in its visual aesthetics, it succeeds in attacking the colonialist dominion of the Philippines by re-inventing ways of seeing by the methods that were available to him. At one point, the production was shut down while waiting for a crewmember to run to town to fill up a cup with gas to put in the vehicle to continue to the next location. Whether that is story or not, lacking a film budget put me in a similar situation. My film feels homemade, slowly made by the time

and materials at my disposal. My decision to include my son as part of the story originated because a large part of my footage is filled with him cutting in.

A carefully worked film treatment and detailed outline proposal would have buoyed my confidence to consider and attract funding to give myself time to edit the film and add dimensions beyond its simple form. Money attracts collaboration. I tend to work alone, but the projects I most admire feel like collaborations. They are larger than a single vision; and like good science, good filmmaking should have the press of many hands in its creation. I shrink from help when I should often reach out to others; some of this was budgetary, some was simply isolation. *Lucky Star* would be a richer film with an assistant writer to shape the story, another shooter to add scope particularly to the interviews, with the outsourcing of graphics, and a fuller audio track.

I shot all of the footage for the project, save for the shots captured by my son. I had a visual criterion for shots I could use in the film. Most blue-chip nature films rely on stunning over-the-top visual effects to glamorize nature. Deliberately keeping my framing humble to put the huckleberry in its earthy space, I avoided shots with sky with a few exceptions. I avoided master-wide shots establishing the lay of the land as a vista to behold. I kept the viewer close-in to accentuate the partial perspective of myself, my son, the huckleberry, and the interview characters. I focused on establishing the berry eye-to-eye, or from slightly below, to consider the huckleberry not as part of land to be surveyed, rather from its own unique perspective. I wanted aesthetically composed shots, but I did not feel compelled to reveal the mountains of Glacier National Park with grandeur and mystique as a tourist would. Instead, I showed the land from an insider's

perspective. I know that the mountains exist beyond the bushes, so I kept my framing in close-up to medium shots – the framing from inside a huckleberry patch, the framing of someone not trying to know or show all. The film included people as much as possible to avoid the “wild frame”. Similarly, I experimented with ways of showing the non-composed and “mess” of nature (contra the human oriented thirds framing and getting a pretty shot) by using a Go-Pro while picking, giving my son the camera, and detaching from the steadiness of the tripod.

When writing narration, I focused on my relationship to my son and my feelings of gracelessness while being a mother and a scientist. At first, it seemed to overstep the boundary of expressing too much private emotion and self-importance in the context of the science and social history of huckleberries. As my son became more of a character in the film it became obvious to me that he was like the wild huckleberry. In the narration, I do not question the truth of the berry, or truth of his being. He is the berry of my body sitting at ease in the huckleberry patch – earthy, playful, bored, and content - reflecting back my own insecurities and self-preoccupations. It was an act of vulnerability to read my own narration intended to create empathy and connection with the audience through my search for meaning while searching for huckleberries.

I constructed the huckleberry in *Lucky Star* to sit at the nexus of science and a homegrown berry patch philosophy. I embraced the subjectivity of my characters stories without whittling the huckleberry down to an object. Whatever is sold at the market bears resemblance to the *Vaccinium globulare* grown up in the mountains, but as Thoreau said, “the ambrosial and essential part of the fruit is lost with the bloom which is rubbed off in

the market cart” (Bowen 58). Like most things, huckleberries cannot be understood apart from the place they come. *Lucky Star* does not reveal any huckleberry secrets, but it does position the science research with the local awareness to inform each other, and opens up space for the viewer just to consider the flesh and body of the berry. It does not narrow down the science of huckleberries or the best place to pick. It ends at the same place it begins, encouraging the spectators to be grounded in their own place and identity to feel the fullness of how much we can illuminate before we are extinguished.

REFERENCES CITED

- Awakiata, Marilou. Selu: Seeking the Corn-Mother's Wisdom. Golden, Colorado: Fulcrum Publishing. 1993.
- Barthes, Ronald. S/Z. trans. Richard Howard. New York: Farrar, Straus, and Giroux. 1974.
- Basso, Keith. "'Stalking with Stories': Names, Places, and Moral Imperatives Among the Western Apache". On Nature. Ed. Daniel Halpern. San Francisco: North Point Press. 1986.
- Bhaskar, Ira. "*Historical Poetics, Narrative, and Interpretation. A Companion to Film Theory*". Eds. Toby Miller & Robert Stam. Blackwell Publishing. 2004. 387-412.
- Blaeser, Kim. Centering Words: Writing a Sense of Place. Wicazo Sa Review, Vol. 14, No 2. Autumn 1999. 92-108.
- Bowen, 'Asta. The Huckleberry Book. Helena, Montana: American Geographic Publishing. 1988.
- Christian, Tommy. Personal Interview. 9 February 2009.
- Densmore, Francies. "Chippewa Music, Vol.1" Bureau of American Ethnology Bulletin. No. 45. Washington, D.C.: Smithsonian Institute. 1910. Reprint, New York: Da Capo Press, 1972.
- Evernden, Neil. The Social Creation of Nature. Baltimore & London: The John Hopkins University Press. 1992.
- Finley, Vernon. Lecture. Apgar Campground. 30 July 2012.
- Graziano, Tracy. An Ecofeminist Model for Wildlife Film. 2005. MFA thesis. www.scholarworks.montana.edu/xmlui/bitstream/handle/1/1380. 3/3/14.
- Haraway, Donna. "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective". Feminism and Science. Ed. Evelyn Fox Keller. Oxford Press. 1999. 249-263.
- Hawley, Steven Jubitz, "Tracking the Trickster Home: The Animal Nature of Words in the Writing of Gerald Vizenor and Barry Lopez" (2007). *Theses, Dissertations, Professional Papers*. <http://scholarworks.umt.edu/etd/1132>

Herman, Steven G. The Naturalist's Field Journal: A Manual of Instruction Based on a System Established by Joseph Grinnell. South Dakato: Buteo Books, 1980.

Holt, Jim. Why Does The World Exist? New York: Liveright Publishing Corporation, A Division of W.W. Norton & Co. 2012.

Hyde, Lewis. Trickster Makes This World: Mischief, Myth and Art. New York: Farrae, Straus and Giroux. 1998.

Iser, Wolfgang. "The Reading Process: A Phenomenological Approach." Reader Response Criticism: from Formalism to Post-Structuralism. Ed. Jane P. Tompkins. Baltimore: John Hopkins University Press. 1980. 50-69.

Kleon, Austin, Steal Like an Artist. New York: Workman Publishing. 2012.

LaTour, Bruno and Steve Woolgar. Laboratory Life: The Construction of Scientific Facts. Beverly Hills: Sage Publication. 1979.

Lesage, Julia. "S/Z and the Rules of the Game." Movies and Methods. Volume 2. Ed. Bill Nichols. Berkeley: University of California Press. 1985. 476-500.

Lopez, Barry. "Landscape and Narrative". Crossing Open Ground. New York: Random House. 1978. 61-71.

Mating For Life. Dir. Cindy Stillwell. Hybrid Media Films. 2012.

McClintock Anne, Imperial Leather: Race, Gender and Sexuality in the Colonial Contest. London: Routledge, 1995. 14, 40.

Merchant, Carolyn. Reinventing Eden: The Fate of Nature in Western Culture. New York & London: Routledge. 2004.

Metz, Walter. Lecture. Montana State University. 27 August 2007.

Oates, Joyce Carol. "Against Nature." On Nature. Ed. Daniel Halpern. San Francisco: North Point Press. 1986. 236-251.

Pickering, Andrew. "From Science as Knowledge to Science as Practice." Science as Practice and Culture. Ed. Andrew Pickering. Chicago & London: University of Chicago Press. 1993. 1-26.

Popova, Maria. "How Ignorance Fuels Science and the Evolution of Knowledge." <http://www.brainpickings.org/index.php/2012/04/02/>

Richards, Rebecca T. and Susan J. Alexander. A Social History of Huckleberry Harvesting in the Pacific Northwest. USDA. February 2006.

Rosello, Mireille. "Agnès Varda's *Les Glaneurs et la glaneuse*: Portrait of the Artist as an Old Lady". Studies in French Cinema; 2001, Vol. 1 Issue 1, p 29-36.

Life of Birds. Episode 7, "Finding Partners." Exec. Producer Mike Salisbury. BBC Production. 1998.

Shiva, Vandana. Monocultures of the Mind: Perspectives on Biodiversity and Biotechnology. London: Zed Books. Third World Network: Penang Malaysia. 1993.

The Gleaners and I. dir. Agnes Varda. Tamarind Films. 2000.

Traweek, Sharon. "Border Crossings: Narrative Strategies in Science Studies and among Physicists in Tsukuba Science City, Japan." Science as Practice and Culture. Ed. Andrew Pickering. Chicago & London: University of Chicago Press. 1992. 429-465.

Vizenor, Gerald. ed. Narrative Chance: Postmodern Discourse on Native American Literatures. Albuquerque: The University of New Mexico Press. 1989.