SET THE NET: THE HERITAGE SIGNIFICANCE OF FISH CAMP AND WILD SALMON IN BRISTOL BAY, ALASKA

Sarah Jane Braund
ABSTRACT

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Chairperson: Anna M. Prentiss

In over 10 years of environmental and socioeconomic studies surrounding the controversial Pebble Limited Partnership mine project design and permitting, commercial salmon fishers’ voices in Bristol Bay, Alaska remain unheard. To meaningfully participate in cultural resource management decision-making that affects them, communities need to speak, yet fisher communities rarely have an established voice. This dissertation uses critical collaborative ethnography and Indigenist research paradigms to describe how the recognition of living heritage communities can be facilitated through the identification of ethnographic landscapes. Such landscapes reflect the meaningful relationship of culture and place, concepts that are currently under-represented in Alaska. Not only my Self as a fisher, but also Other as researcher are presented in a single narrative that weaves together fisher interviews and conversations. As part of a growing body of collaborative research, this dissertation aims to decolonize research by seeking out alternative histories and amplifying marginalized voices of fishers who perpetuate experiential knowledge, and transmit this heritage to future generations through the yearly harvesting of the renewable resource of wild salmon.
Acknowledgements

i thank You God for most this amazing
day:for the leaping greenly spirits of trees
and a blue true dream of sky;and for everything
which is natural which is infinite which is yes
(i who have died am alive again today,
and this is the sun’s birthday;this is the birth
day of life and of love and wings:and of the gay
great happening illimitably earth)

how should tasting touching hearing seeing
breathing any—lifted from the no
of all nothing—human merely being
doubt unimaginable You?

(now the ears of my ears awake and
now the eyes of my eyes are opened)

e.e. cummings

It is through the great support of others that I have been able to think, learn, grow, and change. B.K.S. Iyengar once said that, “change is not something that we should fear. Rather, it is something that we should welcome. For without change, nothing in this world would ever grow or blossom, and no one in this world would ever move forward to become the person they're meant to be.” I will forever have deep gratitude for the love and encouragement provided by family, friends, professors, strangers, and fellow fishers for helping me on my way to becoming the person I am meant to be. An education is a gift that I wish every human had equal access to, I hope to fuel a fire of inspiration inside of others that will encourage them to discover their own pathway towards the joy of learning. No mud, no lotus. Namaste.
List of Figures

Figure 1. Artistic response to Pebble Mine painted on Conex ..................................................... 13
Figure 2. Salmon gill net, Nushagak ............................................................................................ 16
Figure 3. Spread your wings ......................................................................................................... 25
Figure 4. Student perceptions of IRP qualities ............................................................................. 28
Figure 5. Bristol Bay Area Commercial Salmon Fisheries........................................................... 35
Figure 6. Stacking net on Nushagak beach................................................................................... 45
Figure 7. Bristol Bay watershed and mining claims ..................................................................... 49
Figure 8. Common Ground ........................................................................................................... 62
Figure 9. Bluff view of Nushagak................................................................................................. 76
Figure 10. Nushagak beach........................................................................................................... 78
Figure 11. King salmon tail .......................................................................................................... 87
Figure 12. Filleting King for supper at Nushagak ....................................................................... 87
Figure 13. The Pacific Stam Whaling Company cannery in 1900 ............................................... 94
Figure 14. Set Net skiffs delivering catch to tender ..................................................................... 95
Figure 15. Expanded view of Nushagak and set net fleet in the distance ..................................... 99
Figure 16. Bristol Bay Map ........................................................................................................ 100
Figure 17. A Libby, McNeill & Libby Company postcard ........................................................ 102
Figure 18. Restored Bristol Bay Double Ender in Kachemak Bay, AK ...................................... 103
Figure 19. Bristol Bay Double Ender .......................................................................................... 103
Figure 20. Set Net skiffs anchored out prepared for commercial salmon opener ....................... 105
Figure 21. Getting Set Net Over the Bow ................................................................................... 107
Figure 22. Fisher Footprints and Argo Tracks in Nushagak Mudflats ....................................... 108
Figure 23. Nushagak Fish Camp circa 2015 ............................................................................ 112
Figure 24. Nushagak Fish Camp circa 1910 ........................................................................... 112
Figure 25. A circa 1910 John Thwaites photograph of Nushagak village ................................. 115
Figure 26. One of the Oldest Cabins at Nushagak ................................................................. 115
Figure 27. John E. Thwaites postcard of Nushagak village circa 1910 ...................................... 116
Figure 28. Church that was built in 1980s. ................................................................................. 116
Figure 29. Bench from Church with Nushagak Sabbath School in faint handwriting ............... 117
Figure 30. Airplane Nushagak Beach ....................................................................................... 119
Figure 31. Fishers and Tender as sun sets over Bristol Bay ....................................................... 123
Figure 32. Nushagak Fish Camp 2015 ...................................................................................... 131
Figure 33. Anchorage to Dillingham via Alaska Airlines ......................................................... 132
Figure 34. Nushagak Food Inventory ....................................................................................... 132
Figure 35. Packing for Nushagak Fish Camp 2015 ................................................................ 132
Figure 36. Hello Bristol Bay 2015 ............................................................................................ 134
Figure 37. The Big House 2015, Nushagak, AK ................................................................. 136
Figure 38. Fish Camp pantry in chalet ..................................................................................... 137
Figure 39. Nushagak Laundromat ......................................................................................... 138
Figure 40. Set Netters prepare for 2015 salmon season at PAF Boatyard ................................. 140
Figure 41. Sarah Braund's Broken Limited Entry Set Net Permit Card ..................................... 143
Figure 42. Set netting in the dark .............................................................................................. 144
Figure 43. Alaska State Trooper Helicopter Hovers Over Set Netters ................................... 145
Figure 44. Set Netters delivering catch to Tender ..................................................................... 146
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADF&amp;G</td>
<td>Alaska Department of Fish and Game</td>
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<td>ANCSA</td>
<td>Alaska Native Claims Settlement Act</td>
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<td>Alaska National Interest Lands Conservation Act</td>
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<td>CATEX</td>
<td>Categorical Exclusion</td>
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<td>Critical/Collaborative Ethnography</td>
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<td>CHM</td>
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<td>EPA</td>
<td>Environmental Protection Agency</td>
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<td>FEK</td>
<td>Fisher Ecological Knowledge</td>
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<td>Finding of No Significant Impact</td>
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<td>FK</td>
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<td>IRP</td>
<td>Indigenist Research Paradigms</td>
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<td>Indigenous Knowledges</td>
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<td>Indigenous Methodologies</td>
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<td>LEK</td>
<td>Local Ecological Knowledge</td>
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<td>Local and Traditional Knowledge</td>
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<td>Northern Dynasty Mines</td>
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<td>OHA</td>
<td>Office of History &amp; Archaeology</td>
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<td>SBBF</td>
<td>Sustaining Bristol Bay Fisheries</td>
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<td>TEK</td>
<td>Traditional Ecological Knowledge</td>
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<td>TCP</td>
<td>Traditional Cultural Properties or Places</td>
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<td>THPO</td>
<td>Tribal Historic Preservation Officers</td>
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Chapter One

Introduction

Way of Life

“Once it’s gone, it can’t be replaced. We need to take care of it now to keep it for the future. Salmon play a key role in both Alaska’s ecosystems and its economy,” wrote one fisherman.

Another fisherman stated: “I have never lived without salmon; our lives are intertwined. They have provided, year after year. With that blessing comes the responsibility to try to preserve their future, for in so doing, I preserve my own” (unknown)

As we gear up for the upcoming commercial salmon season in Southwestern Alaska, I ask myself what have I learned about Fisher Knowledge (FK) and what does it have to do with Cultural Heritage Management (CHM)? Quite simply, the first thing that heritage mangers do when trying to determine potential impacts of a proposed development is to conduct extensive background research to prepare a thorough culture history of the area. Not many researchers choose to focus on set netters, we are a seasonal group who fish in open skiffs that are completely exposed to the elements. We are the least mechanized commercial fishers in Alaska; we pull up nets with our hands and backs.

While many people have a familiarity with the crab boats on the documentary television series Deadliest Catch, or the big seiners in Prince Williams Sound, we are not that. But what we have in common is that we all have learned to make a living in the marine environment. And for many of us, we discover that it is less about earning a living and more about a way of life. This way of life, our heritage, depends on the sustainable return of wild salmon.

In a time of rapid global change commercial salmon fishers encounter external challenges to maintain their way of life and livelihood. When a large-scale open-pit mining corporation knocks at your door, I mean imagine it, seriously, take a moment. Try and imagine…gold is
discovered in your backyard, not just a small amount of gold but one of the largest deposits in the world. A foreign mining conglomerate is intent on development, even though this mine could potentially impact drinking water, food, animals, your livelihood, and the knowledge you pass onto your children — your ethnographic landscape. There is a law, however, that intends to help mitigate adverse effects, but somewhere in the bureaucratic process fishers get overlooked and are not participants in the decisions concerning developments that effect lands and ocean. Fishers are not participants. This dissertation intends to help the reader to understand the marginalization of fisher voices and to ensure that FK becomes part of conversations to come.

Determining who should be involved in the Cultural Resource Management (CRM) consultation process is established by the agency identifying interested individuals or communities that would potentially be affected by the federal undertaking. The agency is then in charge of “inviting” them to participate; this means that any person, in any cultural group, can be and should be considered before consultation begins. Bulletin 38, Thomas King explains “was designed to ensure that the professional historians, archaeologists, and architects who carry out most of Section 106 review didn’t ignore the concerns of real people, in real communities, about places that are important to them” (King 2002:127). Local community responses surrounding the Pebble Limited Partnership mine varied, some residents felt the mine could bring in beneficial economic opportunity and a road system, while others artistically expressed that Bristol Bay’s nexus is wild salmon (see Figure 1).
Originally, there were 20 Bristol Bay drainage study-area communities that were identified by ADF&G Division of Subsistence, Stephen R. Braund & Associates, and NPS (National Park Service) for the inclusion in the Pebble mine Environmental Baseline Document that was published in 2012: Aleknagik, Clark’s Point, Dillingham, Ekwok, Igiugig, Iliamna, King Salmon, Kokhanok, Koliganek, Levelock, Lime Village, Manokotak, Naknek, New Stuyahok, Newhalen, Nondalton, Pedro Bay, Port Alsworth, Portage Creek, and South Naknek. Research in the 20 communities focused on subsistence harvests, traditional knowledge and cultural resources in the vicinity of the Pebble deposit and possible transportation corridor.

Further research defined by the EPA’s (Environmental Protection Agency) Bristol Bay Assessment team was to report on status of the Indigenous cultures of the Nushagak and Kvichak River watersheds and their dependence on and relationship to salmon and other stream-based natural resources of the region suggested including the villages of Aleknagik, Port Alsworth, Igiugig, Levelock, Ekwok, Kokhanok, New Stuyahok, Koliganek, Curyung (Dillingham), Nondalton, Pedro Bay, Newhalen, and Iliamna. All are within the Nushagak or Kvichak watersheds except Aleknagik which is in the Wood River watershed near the Nushagak River.
Of those villages recommended by the EPA, anthropologists Knott and Borass selected seven villages in which to conduct interviews to portray a characterization of the village cultures of the Nushagak, Kvichak and Wood River drainages focusing on the relationships of the people to salmon: New Stuyahok, Koliganek, Curyung (Dillingham), Nondalton, Pedro Bay, Newhalen, and Iliamna. Four are primarily Yup’ik villages and three are primarily Dena’ina villages. The focus of the Bristol Bay Assessment was salmon, water, and the human dimension of modern Indigenous “salmon-cultures” of the region (Borass and Knott 2014:11).

There is no set procedure in Section 106 for agencies to identify other participants. Anthropology has a historical tendency to focus on Indigenous communities, perhaps this could be the reason that the contemporary commercial fisher community was not adequately taken into account (Bennett 1996). Regardless, seasonal commercial salmon fishers in Bristol Bay, Alaska were not asked to participate in the Pebble Limited Partnership Mine Project Environmental Impact Statement (EIS). Cultural heritage managers are just starting to recognize the cultural significance of riverscapes and seascapes, of fisher knowledge and fish camps, that is, Bristol Bay and its surroundings. After over 10 years and 150 million dollars spent on studies surrounding the controversial Pebble mine, commercial salmon fishers’ voices in Bristol Bay, Alaska remain unheard. My Self as a fisher, but also Other as researcher are presented in this dissertation that weaves together fisher interviews and conversations amplifying marginalized voices of fishers who perpetuate and transmit heritage to future generations through the yearly harvesting of the renewable resource of wild salmon.
The Pebble mine proposal initiated concerns for several reasons: 1) the area of potential effect for the project extends through 24 communities throughout the Bristol Bay region with arguably worldwide impacts, 2) the Indigenous and locals depend on subsistence, particularly salmon, as do commercial salmon fishers and processors 3) the mine’s proposed location could interfere with clean water, habitat, and wildlife, 4) the life expectancy of the mine is 25-100 years, 5) the largest earthen dam in the world would have to be constructed to hold the toxic tailings and would need to be monitored and managed forever (EPA.gov 2012).

To some degree, every community in Bristol Bay depends on the return of wild salmon and therefore relies on a healthy ecosystem to survive. Climate change, potential adverse effects of industrial development on water, salmon, wild food and plants are challenges that face future generations. The proliferation of resource exploration and the potential impacts of proposed projects such as the Pebble Limited Partnership project emphasize the demand for contemporary ethnographic work that amplifies fisher voices in Bristol Bay.

The following poem, “Creating a Community Web” was written by Emilie Springer, a Doctoral student in the Department of Anthropology at the University of Alaska Fairbanks and a multi-generational life-long commercial fisher. Springer’s academic work is in the fishing community of Cordova and this poem illustrates that while the fishing gill net (see Figure 2) is a fundamental tool it also serves a metaphor for the cosmology of the commercial fisher. Each knot represents a story that unites the entire web, always a fluctuating and changing narrative with every season but enduring like the ebb and flow of the tides.
Visualize the craft of web.
Begin with a single knot. Loop, lash and the knots form a mesh.
Meshes become a sheet.
Web is hitched to lines, corks and leads with fast, steady hands working with years for practice.
Measures made by instinct.
They align it: quick, tight and just right. Memories weave carefully.
Our nets must function as a whole.
Each knot, each vessel, each square, holds the rest of it together.
Know how to mend, repair, patch—reconstruction never ceases.
Sometimes quick—
In working time the meshes slide over a rock or catch a sharp snag on the deck;
There is a catch on the propeller or a tangle with a vessel too close.
A sea lion finds a salmon to steal and twists his way in the waving trap.
Sometimes slow—
There are dark months of insulated Xtra Tuffs on concrete shop floors;
We share needles with friends like simple conversation.
Hitch, stitch and don’t forget: our net must function as a whole.
Each person is a knot bound in the community web.
Corks for air and luck; lead for balance and wisdom.
Keep fishing and mending and testing and moving.
Our nets must function as a whole (Emilie Springer 2015).
Just as the poem, *Creating a Community Web* suggests, the approximately 14,000 fishers and processors’ that return each salmon season are a ‘heritage community.’ Bristol Bay salmon are harvested commercially by set and drift gill net gear by Indigenous and non-Indigenous Bristol Bay residents, Alaska residents and Non-residents from the “Lower-48,” and as such are not considered a year-round Bristol Bay ‘community’. Commercial fishing in Alaska continues to be a male-dominated industry, so many opt for the more inclusive term of fisher. The Framework Convention on the Value of Cultural Heritage for Society (FARO) defines a heritage community as, “people who value specific aspects of cultural heritage which they wish, within the framework of public action, to sustain and transmit to future generations” (FARO 2005). The knowledge passed on from commercial salmon fishers to future generations is what is known as FK. *Fishers comprise a tightly woven heritage community replete with unique knowledge and skill set worthy of documenting.*

**Understanding Experiential Knowledges**

Indigenous Knowledges (IK) and FK are unique, but both are considered by western science to be experiential knowledges, that are often passed on to future generations through oral traditions and modes of communication. Indigenist Research Paradigms (IRP) are alternative approaches to research. Currently, there is not a ‘fisher research methodology.’ I suggest, that understanding IRP first and foremost helps to build common ground (See Figure 8) to bridge the gaps between local, Indigenous, scientific, and governmental styles of communication, notions of value, and perceptions of the natural and cultural cosmos.
Anyone, Indigenous or non-Indigenous, can follow IRP (Pulsifer et al. 2011). IRP are context specific and all different, guided by Indigenous peoples’ distinct cultures, languages, histories, realities and relationships. Some shared commonalities often acknowledged: they tend to be holistic, circular, interconnected, fluid, dynamic, animate, cyclical, relational, spiritual, meant to build upon knowledge rather than designed to reject (Wilson 2008; Louis 2007; Smith 2012; Kovach 2009).

When western science seeks answers of IK and FK, there tends to be a certain amount of confusion. The confusion arises when western science attempts to apply a standard framework to understand intuitive, hard to define knowledge that is largely experience based—tacit. Researchers, scholars and academics in multiple disciplines from geography (Louis 2007; Pulsifer et al. 2011; Koster et al 2012), sociology (Denzin 2010), public health (Baldwin et al. 2009), environmental education (Kapyrka and Dockstator 2012) and transcultural nursing (Getty 2009) are developing contemporary approaches to incorporate as well as equalize other types of knowledge and thus give a fuller less-biased perspective of human heritage.

**From Resource to Heritage**

A cultural resource can be thought of as any resource of a cultural character. Quite simply, “cultural resources are resources that are important to cultures” (Odess 2017). A natural resource can be a cultural resource which may include, “the plants and animals, the rocks and minerals, the waters and waterways, and the landscape and ecosystems that contain cultural meanings for people who use, relate to, and behold them” (Willow 2011:115). The passage of environmental and historic preservation laws in the United States have led people to categorize cultural resources as prehistoric archaeological sites, historic archeological sites, historic resources, traditional cultural properties (TCPs) and more recently cultural landscapes.
In the United States, heritage is managed, maintained and preserved through CRM. Western definitions of resources are typically associated with an asset that has monetary value. To imply that a resource is synonymous with heritage has been increasingly criticized by Indigenous peoples worldwide. After feedback from Indigenous Australians in the 1980s, who insisted that their culture was not a “resource” to be “exploited” Australia began the semantic conversion from CRM to CHM (McNiven & Russell 2005). Canada has shifted terminology and I also prefer to use the term CHM to CRM.

One way to broaden our understanding of cultural heritage is through identifying the cultural values and traditions tied to landscape and seascape. The relationship between people and their environment can be examined by understanding how historical relationships between humans and their landscape are created, maintained, and constantly changing. On the basis of this perspective, I find that preservation and conservation of cultural resources as is practiced in the United States needs to build awareness of the important role of people as central, carriers and inheritors of cultural heritage by recognizing the inter-relationships of people and their environments as critical for heritage research, interpretation and conservation (FARO 2005).

There is currently a dearth and a critical need for collaborative ethnographic research that focuses on how to incorporate the perspectives of LTK (Local and Traditional Knowledge) and FK into scientific research (NPRB 2005; Thorton et al. 2012). Alaska’s commercial fisheries and subsistence are managed through western scientific frameworks, which tend to prioritize scientific data over LTK and FK. The problem that many scientists and governmental policy-makers face is the qualitative nature of FK can often be disregarded for being anecdotal because it is culturally at odds within western scientific methodology (Hind 2015). Sylvia Zukowski et al. (2011) indicates that local FK is a reliable source of information that can help improve resource
management. Furthermore, Johannes et al. (2000) argues that ignoring expert fisher perspectives has led to the unnecessary demise of entire fish stocks, which have yet or may never recover.

To be able to engage in collaborative ethnographic conversations when the Bristol Bay fishery is not in collapse is extremely important. If salmon runs are weak, the Alaska commercial fishing area management biologist’s implement restrictions in fishing time but because Bristol Bay salmon stocks remain relatively healthy (Clark et al. 2006), despite volatile economic cycles (Hebert 2015), contemporary commercial salmon fishers can maintain a somewhat steady fishing rhythm.

First, the critical point that I would like to emphasize, and that other scholars have shown (Johannes et al. 2000; Montgomery 2003; Thorton et al. 2010), is that the time to begin a dialogue with fishers is before a fishery is in collapse. Second, fishers, not researchers, need to be proactive in shaping the future of our heritage community by speaking to what is worthy of preservation, valuable, and significant in and on their own terms. Through my exploration of CHM and IRP, this dissertation finds that CHM is a form of scientific management, and there are other modes of understanding. CHM is for all peoples and since all peoples relate to the world in different ways, such relationships are not often revealed, can be set aside, or misunderstood through a scientific lens. With a better understanding of IRP and the notion of collaborative research partnerships cultural heritage managers can renew research that can fully integrate contemporary ethnographic perspectives and figure out how these perspectives can be upheld within laws such as National Historic Preservation Act (NHPA) (King 2013).
**Participant as Researcher**

Practicing anthropology or the “New Applied Anthropology” is a label that emerged in the 1970’s and refers to the work of anthropologically trained people who use their applied skills and specialized knowledge, full time, outside of academic settings for practical purposes for problem solving in any of the human dimensions. Often knowledge for practicing anthropologists is seen as a means to an end or a commodity. Research tends to be directed toward the client’s needs rather than what the anthropologist sees as important to investigate from a larger perspective. This can create pressure when expected to be loyal to employer while trying to retain intellectual and scientific integrity within anthropology as a discipline (Ervin 2004).

Practicing anthropology is often used in CHM to understand the impact that developments may have on the ethnographic landscape. Much of the practicing anthropology of CHM is published in reports or documents as grey literature. The research conducted is to aid in decision making and anthropologists are meant to use their specialized knowledge to see past the cultural biases that shape our society’s determination of both the criteria of “need” and the definition of “resource”. CHM approaches problems with social forecasting, using research to guide questions to determine what is likely to happen in the future if a particular course of action is followed. Practicing anthropology, as guided by CHM, becomes a top-down approach to development, and seldom are the studies developed to provide benefits to the community (Nicholas and Hallowell 2009).

Marietta L. Baba (1994) argues that there needs to be a strong relationship between academic and practicing anthropology because academia provides the intellectual core for the discipline. Because practicing anthropology is an extension of anthropology there needs to be an
intimate link between the two. According to Baba (1994), the most critical areas to address are in the education and training of future practitioners, the link between theory building and applied research, and the use of anthropological knowledge to address policy needs.

When working with living communities, if we hold true to the principles of best practices developed for anthropological research, then the community we are working with takes precedence (NCAI 2012). If communities are given the opportunity to be genuinely heard, as experts of their culture, then research has the potential to be empowering. I began this dissertation with the simple question of knowing what I know, *how do I carry out appropriate applied anthropological research in my own commercial set net salmon fisher community?* Come to find out this is not a simple question, and as a result what I discovered was transformational.

Am I a set netter writing in a way that is accessible to and benefits fishers? Or am I a researcher that is writing for academia to benefit myself and academia? Some fishers in my community are Indigenous, so should I use an Indigenist research approach? Since both IK and FK are considered experiential knowledges that are different then western science yet complementary, why does it need to mimic a scientific research framework or format to be validated?

I am a member of an experiential knowledge community and I am also part of a scientific community. I value both, so I sought out ways to approach research that could balance and honor both types of knowledges by examining the ways that Indigenous scholars are creating space and validity for the acceptance of Indigenous knowledges. I know in terms of a dissertation, ultimate authority rests in the hands of my committee and the University and not my community. Using ethnographic procedures, *how can I interpret experiential knowledge so that it will be meaningful in other contexts without losing its essential culture and content?*
The broader impacts of this project lie in the focus of the importance of achieving greater consideration for living fisher heritage communities. This research is timely, as currently Bristol Bay salmon runs are touted as being a scientific model of sustainable success. Other similarly managed river systems are not as fortunate in Alaska, such as the low abundance of returning king salmon in the Yukon River, Kuskokwim River, and Cook Inlet, which is resulting in increased fishing closures and empty smokehouses.

Further advancement of FK validates the voices of fishers, by understanding who we are and the stories we hold perhaps this qualitative knowledge can begin to make its way into a more balanced discussion that weaves together western science and FK. This dissertation attempts to answer the call for research that considers the importance of FK and how experiential knowledge could be better integrated into CHM, scientific management of wild salmon, policy, and governance (Hind 2015).

The story that follows is one student’s personal journey in searching for an alternative, more appropriate way to approach doctoral study in applied anthropology and CHM. It could be considered part literature review, part narrative, part critical-visual ethnography and part autoethnography. Reflexivity or the notion of self-in-relation is a research procedure of sharing through personal story that is an important component in both qualitative critical ethnographic research and IRP (Creswell 2003; Kovach 2009; Wilson 2008). If we think of the research process as a compass, and if we allow ourselves to travel in many directions, our pursuit of knowledge can lead to new spaces. My focus continues to be dedicated to trying to understand representation (or misrepresentation of diverse voices), mutual beneficial collaboration, and how to improve research today and in the future.
Locating oneself or self-locating in Indigenous methodologies (IM) is a protocol, a practice of respect to ensure accountability, build trust, and decolonize research (Koster et al. 2012; Kovach 2009; Louis 2007). The intention of locating yourself builds a relationship, from the outset, to establish what Shawn Wilson identifies as “common ground,” a crucial component of meaningful cross-cultural communication (Wilson 2008:6). Self-location, as described by Indigenous scholars, is a process of deep self-reflection, a personal preparation that builds connections between writer and reader (Louis 2007; Wilson 2008; Kovach 2009). It is a way for the reader to connect with the writer on a personal level, just as I would if I were to meet you face to face. For Indigenous scholars, it can be a much deeper preparation that honors relationships to ancestors, the cosmos, and beyond (Kovach 2009; Wilson 2008).

It is with respect to the tradition of establishing common ground that I also begin by locating myself. I am a first-generation college student and grew up on the wide-open plains of rural eastern Montana. As a mother, graduate student, and commercial salmon fisher in Alaska it has always been my goal to use my education to benefit and inspire others that it is possible to overcome barriers and spread their wings (see Figure 3). For me this dissertation is the culmination of years of life experiences and higher learning and represents an opportunity to join other scholars in promoting alternative ways of knowing, making positive contributions to local communities, ensuring that knowledge is accessible and shared appropriately.
Definitions

Experiential Knowledges

Traditional Ecological Knowledge (TEK): and oft used definition for TEK is:

the on-going accumulation of knowledge, practice and belief about relationships between living beings in a specific ecosystem that is acquired by Indigenous peoples over hundreds or thousands of years through direct contact with the environment, handed down through generations by cultural transmission, and used for life-sustaining ways (NOAA 2007).

…transmitted through oral tradition and first-hand observation. It includes a system of classification, a set of empirical observations about the local environment and a system of self-management that governs resource use. Ecological aspects are closely tied to social and spiritual aspects of the knowledge system. The quantity and quality of TEK varies among community members, depending upon gender, age, social status, intellectual capability and profession (hunter, spiritual leader, healer, etc.). With its roots firmly in the past, TEK is both cumulative and dynamic, building upon the experience of earlier generations and adapting to the new technological and socioeconomic changes of the present” (Stevenson 1996:281).

Local Ecological Knowledge (LEK): Is gained through life experiences in a particular place and concerns the relationships of living communities with their environments. LEK is:

similar to TEK it is tied to place (e.g., specific hunting or fishing grounds) and is knowledge acquired through experience and observation. It can be acquired over a single lifetime or over many generations. LEK differs from TEK in that it does not require an ancient or even a multi-generational accumulation of knowledge, it does not require that the population be Indigenous, and it does not require embedding in a broader shared culture (NOAA 2007).
**Fisher Ecological Knowledge (FEK):**

is local knowledge concerning inter-annual, seasonal, lunar, diet and food-related variations in the behavior and movements of marine fishes and mammals...Such knowledge is passed from generation to generation of fishers and influences the nature, timing, and location of their fishing (Johannes et al. 2000:265).

**Fisher Knowledge (FK):**

is a similar to LEK in that it is tied to place, is acquired through experience and observation, and may be acquired over a single lifetime or passed down over many generations...LFK includes non-ecological knowledge related to fisheries, including but not limited to business aspects of fishing, economics, social dynamics, and local fishing culture (NOAA 2007).

**Local and Traditional knowledge (LTK):** For ease and to be more encompassing researchers and scholars often lump together “local” and “Traditional” knowledges into one category. Marine LTK and Fisher LTK are types of LTK.

**Indigenous:** I use the term Indigenous peoples and culture in reference to people and peoples who identify their ancestry as Indigenous.

**Indigenous Knowledges (IK):** An intentionally plural term used to recognize the variety of tribal knowledges that exist.

**Research Paradigms**

**Research Paradigm:** Anschutz et al. (2001:160) define paradigm as “a set of working assumptions, procedures, and findings that define a pattern of inquiry about the nature of our knowledge of the world or some aspect of the world”.

**Indigenist Research Paradigms (IRP):** There is no single IRP so it follows that there is no universally accepted definition. After reading “Research is Ceremony” I contacted Shawn Wilson to discuss this term further, in a personal communication Wilson clarifies some terminology and for this reason I use the term Indigenist Research Paradigms. Wilson explains:

One of the things that I’ve changed since I wrote the book is that I now use “Indigenist” to describe this philosophy/research paradigm, rather than “Indigenous”. This change in terminology is important to me, as I believe that of course many non-Indigenous people also believe the same
IRP are alternative approaches to research. Anyone, Indigenous or non-Indigenous, can follow Indigenist research paradigms (Pulsifer et al. 2011). Indigenous methodologies (IM) are described as both qualitative approach and not (Kovach 2009), and therefore do not necessarily take on a one-dimensional, linear, compartmentalized, analyze and reject or deny standard research framework. IRP are context specific and all different, guided by Indigenous peoples’ distinct cultures, languages, histories, realities and relationships. Some shared commonalities often acknowledged: they tend to be holistic, circular, interconnected, fluid, dynamic, animate, cyclical, relational, spiritual, meant to build upon knowledge rather than designed to reject (Wilson 2008; Louis 2007; Smith 2012; Kovach 2009).

**Author’s Perception of IRP Tenets:** For those readers that may be completely unfamiliar with IRP I drafted a pictorial illustration (Figure 4) of my personal perception of Smith (2012), Wilson (2008) and Kovach (2009) descriptions of tenets of IK. Again, there is no single definition. In my mind these ideas are not disconnected, they are more like the tidal flow or currents in the ocean, they bubble, swirl, rise and fall and are multi-dimensional. Unfortunately, once I put them on the page it became static, flat, and lifeless.
Western Science: Science as I know it and as I have been instructed in the college classroom is described as the pursuit of knowledge about how the world works. “Organized Curiosity” of assumptions and rules. Science is both a body of knowledge and a process by which one adds to the body of knowledge. Scientific methods are ways scientists gather data and formulate and test scientific hypotheses, models, theories and laws. There is no end to this process.

Is there just one, rigid “Scientific Method” that must be followed? No, each method involves trying to answer a set of questions, with no guidelines for answering them but they do
try to reduce errors by using standard procedures, testing, and reproducibility. Is science free of bias? Of course not; scientists are human. Is it objective? Of course not, scientists are trying to be objective but their background may affect their work. Peer Review, however, offers legitimacy to their work. Is it free of assumptions? No, science assumes 1:

1. The universe is orderly. It obeys its own set of natural laws. In these, causes precede effects
2. The universe is knowable. We can study and understand the universe.
3. The universe is post-dictable and predictable. We can use observations of how the universe is now to theorize about the past and how it might be in the future.

**Ethnography**

**Critical/Collaborative Ethnography (CE):** Ethnographies are texts that begin and end with people. Historically, texts written predominately by male anthropologists on male topics about Indigenous peoples. Traditionally, the anthropologist would travel into “the field,” engage in a period of participant observation, provide examples or data on Indigenous peoples to substantiate a particular theoretical position, claim authorship, and use these texts train future anthropologists. A shift occurred, particularly in ethnography, after “Writing Culture: The Poetics and Politics of Ethnography” was published, which highlighted anthropology’s involvement in colonialism and started an era of reflexivity. With the addition of feminist, critical, queer theory, applied anthropology, IRP, shift towards emancipatory projects and collaborations, we see an emergence of an intentionally explicit anthropology (Rabinow 2008 et al. 2008). Collaborative Ethnography is, then:

an approach to ethnography that deliberately and explicitly emphasizes collaboration at every point in the ethnographic process, without veiling it—from project conceptualization, to fieldwork, and, especially, through the writing process. Collaborative ethnography invites commentary from our consultants and seeks to make that commentary overtly part of the ethnographic text as it develops. In turn, this negotiation is reintegrated back into the fieldwork process itself. Importantly, the process yields texts that are co-conceived or co-written with local communities of collaborators and consider multiple audiences outside the confines of academic discourse, including local constituencies (Lassiter 2005a:16).

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1 This description of science was taken directly from my class notes in an Environmental Science course taught at (Fort Lewis College 2001).
**Ethnographic Landscapes**: Plants, animals, minerals, landforms, and bodies of water that give landscape meaning through their associations with people’s history and cultural identity.

**Chapter Outline**

Chapter One is an introduction to understanding cultural resources, what they are, how they are identified, managed and how heritage communities can be overlooked. Nushagak, the small seasonal commercial set net fishing community in Alaska is a case in point, where Indigenous and non-Indigenous commercial salmon fishers have developed a close relationship with the landscapes and seascape. As a commercial fisher at Nushagak I am both participant and researcher so I carry a unique perspective because I have been ‘researched’ as a fisher and am now embarking as a researcher in my own fisher community. IK and FK are experiential knowledges and this dissertation suggests that as researchers and cultural heritage managers we must continue to find common ground (see Figure 8) to bring about equilibrium and thus give a fuller less-biased perspective of human heritage. Definitions of experiential knowledges, research paradigms, and ethnography are covered.

Chapter Two outlines CHM as practiced in the United States and in particular the State of Alaska to better understand the laws, participants, and pitfalls. CHM in Alaska is unique because of the state’s size, population, and land/sea use. Alaska statutes that implemented Tribal land exchange and land preservation dramatically impacted the practice of CRM statewide. A large portion of land in Alaska is federally owned and as such federal laws and regulations guide research. To expand our perspectives of heritage the differences between cultural and
ethnographic landscapes and seascapes is discussed to encourage the recognition of living heritage communities.

Chapter Three is meant to decolonize the historical account of the Bristol Bay region by offering an alternative history, written by an Indigenous Bristol Bay resident to not only provide the reader with a sense of regional familiarity but also highlights my own personal research journey. After reading and connecting with the published works of Indigenous scholars, my perception of what research was, is, and ought to be, changed. There are many ways that researchers can find common ground. Not only realizing but also caring that there are alternative approaches that are preferred by Indigenous and non-Indigenous scholars as well as Indigenous and non-Indigenous communities is important.

Chapter Four is a description of the theory, methods, and methodology I used for this qualitative study. Research begins with the researcher and every research experience highlights the importance for anthropologists to establish what type of method works best for specific cases. We must ask ourselves, what is the best way to seek to understand, by asking how do I address this question in this instance? How have others approached this type of problem? By gaining an understanding of contemporary IRP and CE allowed me to consider and strive towards research that takes action and is more in line with my academic beliefs, ethics, and morals.

Chapter Five discusses wild salmon as a cultural keystone species and speaks of its importance to Indigenous and local communities throughout Bristol Bay and beyond. There are many differing definitions of subsistence, this chapter highlights subsistence as way of being and not just an economic means to an end. As Alaska transitioned from a territory to Statehood it marked the beginning of salmon considered being solely subsistence to salmon as resource.
Chapter Six, a two-part chapter, that first discusses Nushagak’s original formation as a Russian trading post to its present-day status as a seasonal fish camp for commercial salmon set netters. The progression of the commercial fishery is described from the early days of commercial sailing for salmon with Bristol Bay double enders to becoming contemporary seasonal community to set net fishers. The second part, “Historic Nushagak Fish Camp Conversations,” is purposefully written in an artistic style to reflect how I interpret the telling of FK as story. My perception of ethnography is that is in an art form that is unique to each researcher. My intention was to stay as true the stories that unfolded over the salmon season and present them as fluidly and naturally as possible.

Chapter Seven, a two-part chapter, part one is me in person discussing my experiences as a woman going to Nushagak as a fisher, mother, and researcher. There are no two fish camps alike, nor are their two fishers who fish in the same way, nor story that is told the same way every time. Although this experience is unique to me, the themes covered are shared by many people who travel to seasonal fishcamps, are not connected to a road system, electricity, and live by the tides. Part two, “Observations”, reflects broad brushstrokes of accumulated FK, describing major shifts that are identifiable through the conversations I had with fishers as well as my own personal observations.

Chapter Eight concludes with the overarching message that there are many ways to engage communities in efforts to build research relationships, document, and preserve heritage but first a community must be recognized. To identify the vast inter-relationships of people and their environments researchers need to strive for common ground to evoke voices in a meaningful way which fosters the elucidation of the intangible. With the reinvigoration of the Pebble Limited Partnership mine and its goal towards fast track permitting, fishers must be more
involved in developing their heritage community in order to contribute FK to fisheries and heritage management, particularly in regards to wild salmon sustainability.
Chapter Two

Alaska Heritage Management

There are better ways to catch fish then with a gill net. You could mechanize it, commodify it. But there are sociopolitical reasons why we have created what we have today. It’s a state-owned resource meant to get into as many hands as possible for the local, regional and state economy (Fisher Knowledge 2016).

Heritage is alive; it is a living thing that provides people with a sense of self, of place and identity. Heritage distinguishes between who we are and who we are not. It holds a community together and can unite humanity on a global level. At the same time, it is the very thing that seems to differentiate; it is our own, to be cared for and protected from those who would threaten it. The reason heritage defies definition is because it is in a perpetual state of fluctuation, constantly being modified, degraded and enhanced.

While in the Cultural Heritage Graduate Program at the University of Montana many of my fellow graduate students had backgrounds in Archaeology, while my primary focus has been in socio-cultural anthropology. I studied understanding heritage through ethnographic landscapes (a platform for helping people understand differing perceptions and relationships to land, cosmology), historical ecology (encourages long durée and interdisciplinary approaches allow for more holistic results because it shows better understanding through integration of multiple disciplines). I also learned a great deal about CHM and identified a need to address its proclivity towards favoring dominant western scientific research as an authority.
The Gulf of Alaska supports some of the most sustainable and economically valuable fisheries in the United States. The seasonal set net salmon fishing community of Nushagak is in the Nushagak Commercial Fishing District, across the bay from Dillingham (Figure 5). In the world, Alaska often serves as a model from which future fisheries will be effectively managed. The Bristol Bay fisheries were part of an original group of 19 Alaska salmon fisheries that were limited in 1974 (Iverson 2009). In the most basic sense, Alaska fisheries are managed by fishing time, fishing location, and amount of gear to produce stable returns of wild salmon. The Bristol Bay commercial salmon fishery is certified sustainable by the Marine Stewardship Council, a leading voice in the global sustainable fisheries debate. Commercial fishing is the largest private sector employer in Alaska, providing over 63,000 jobs.

Timely documentation of ethnographic landscapes is particularly salient in Alaskan commercial fishing communities where modernization, development of natural resources, and climate change are influencing landscape and seascape relationships. According to the National Oceanic and Atmospheric Administration’s 2016 Annual report, Arctic communities are
experiencing warming twice as fast as the rest of the globe. Commercial salmon set net fishers at Nushagak can physically see and are experiencing landscape and seascape changes occurring within our lifetimes.

**Alaska State Laws and Statutes**

The cultural environment, the corpus of cultural resources, is a big, complex, intricate mosaic of things and institutions and values, beliefs and perceptions, customs and traditions, symbols and social structures. And it’s integral to what makes people people and communities communities, so it’s charged with a great deal of emotion (King 2004:12).

Alaska is the largest state in the United States and is home to one-third of the Nation’s coastline. It is home to 229 federally recognized tribes, each culturally and geographically distinct (Lewis and Boyd 2011). The Alaska Native Claims Settlement Act (ANCSA) of 1971 and Alaska National Interest Lands Conservation Act (ANILCA) of 1980 had a profound effect on Alaska’s land and peoples. ANCSA extinguished all Native land claims and in exchange 14 Native-owned regional and 220 village corporations were formed (for thorough explication see Case and Voluck 2002). ANCSA initially granted 962 million dollars and 44 million acres of federal land which was divided between the corporations (National Park Conservation Association 2011). It is beyond the scope of this dissertation but for further discussion refer to Alaska Native Subsistence and Sovereignty: An Unfinished Work by Barbara Frances Wolf (2003).

ANILCA sought to preserve natural landscapes and rural subsistence life-ways through protection of “over 100 million acres of federal lands in Alaska, doubling the size of the country’s national park and refuge system and tripling the amount of land designated as wilderness” (National Park Conservation Association 2011). What this means regarding CHM is
that the federal government owns 60 percent of the total area of Alaska, while 25 percent is state owned, 10 percent are private lands belonging to Native corporations and less than 1 percent is privately owned (ADNR 2000). Alaska statutes that implemented Tribal land exchange and land preservation dramatically impacted the practice of CHM statewide. A large portion of lands in Alaska are federally owned and as such federal laws and regulations often apply to cultural resource work.

The size, low population, and remoteness of Alaska differentiates it from other states but so does how the land and sea are conceptualized. Rachel Mason (2004) identifies three themes that shape landscape perspectives in Alaska: traditional Native Alaskan subsistence, wilderness or recreational activities, and frontier opportunities through the extraction of natural resources. These themes provide a basic introduction to Alaska’s different and sometimes conflicting viewpoints. An additional theme is the scientific perception of Alaska as a “natural laboratory” by researchers from outside the circumpolar North and the demand for emergent collaborative approaches to research that do not reduce Northern residents to objects of study (Csonka 2013).

The Alaska Historic Preservation Act (Alaska Statute 41.35) of 1970 enacted state policy, “to preserve and protect the historic, prehistoric, and archeological resources of Alaska from loss, desecration, and destruction so that the scientific, historic, and cultural heritage embodied in these resources may pass undiminished to future generations.” (Alaska Statutes 2005). The Act also created the OHA (Office of History & Archaeology) that acts as a preservation body for Alaskans (Office of History & Archaeology 2006). Alaska statutes 41.35.010-41.33.240 address cultural resources on state lands which “includes deposits, structures, ruins, sites, buildings, graves, artifacts, fossils, or other objects of antiquity which provide information pertaining to the
historical or prehistorical culture of people in the state as well as to the natural history of the state” (Alaska Statutes 2007).

If a proposed project may threaten cultural resources the agency must identify and document the resources and submit all information to the state department and allow the state department to expeditiously investigate the site. If significant cultural resources are found and there is a way to avoid adversely affecting the resources, through excavation or other alternatives then preservation efforts may take place. Any costs incurred are the responsibility of the agency that is undertaking the project (Alaska Statutes 2007).

In 1966, the United States Congress passed NHPA to better assess the impacts of the federal government’s actions on associated cultural resources. Amended in 1992 and 2004, the NHPA takes into account the Federal Governments impacts on historic property and seeks comment from the Advisory Council on Historic Preservation (ACHP). Historic property, “means any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places (NRHP)” (36CFR§ 800.16(l)). The NHPA considers the federal government’s impacts on archaeological sites, historical resources and traditional cultural properties yet there was still need to consider the effects of actions on the natural and social environment.

During the late 1960s, Americans were becoming more aware and vocal about the environmental injustices that were occurring as a result of the federal government’s rapid development projects. Since the inception of the NHPA, federal agencies have been responsible by law to make a “reasonable and good faith effort” to notify and involve the public at “the early stages of project planning” in order to “take into account” the effects of their actions on places included in or eligible for the NRHP (36CFR § 800.1). In 1969, the National Environmental
Protection Act (NEPA) articulated national policy favoring environmental protections and required agencies to consider the effects of their actions on the quality of the human environment, in all its aspects, including its cultural qualities.

NEPA articulates national policy, “to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans” (Sec. 101 [42 USC 4331]). The goal of NEPA is to integrate the environment, social/human environment, and economic environment into federal agency planning and decision making. To help implement these procedures NEPA established the Council on Environmental Quality (CEQ) (King 2004:53). The CEQ is responsible for overseeing the Office of the Federal Environmental Executive, the environmental impact statement process, and advancing the President of the United States agenda.

When a federal agency takes an action there are three levels of NEPA analysis depending on the scope of the proposed project. The first level is a Categorical Exclusion (CATEX) where there would be no significant individual or cumulative effect on the quality of the human environment. If it is not a CATEX then an environmental assessment (EA) is needed to determine if federal actions significantly affect the quality of the human environment (MFAS AQHE). The EA ends with a Findings of No Significant Impacts (FONSI) or an EIS must be prepared. The EIS is a more complex analysis of environmental impacts that allows the federal agency, and involved consulting parties to address alternatives and attempt to minimize, mitigate, and monitor adverse effects (King 2004:51-76).

When I first attended a graduate course at the University of Montana, in CRM, I thought that NEPA was an acronym for the National Environmental Protection Act. I think that many of
us come to CRM with the intentions of fostering diversity through the preservation and promotion of culture and heritage. The disadvantage of NEPA, is it is procedural in nature rather than substantive. It requires the final decision makers (who are politically appointed) to consider potential impacts but the process generally does not provide the opportunity for that information to prevent harmful development projects from occurring. NEPA is better than no policy but if we want an assurance towards a sustainable future, change is necessary.

The NPS was granted authority under NHPA to maintain the NRHP and issue standards and guidelines for CHM, as well as issue regulation updates. As the policy implementing body for CHM, the NPS influences the sites that are established as significant to American history, archaeology, architecture or landscape. As such, the NPS and CHM professionals act as heritage stewards for the United States. Cultural properties were rarely protected prior to the 1980s, with no way to evaluate natural places that were culturally important to Indigenous peoples and minority communities were ignored. Cultural heritage managers acknowledged this disparity and to address the heritage disparity there was recognition of TCPs, “that are valued by a human community for the role it plays in sustaining the community’s cultural integrity” are also considered historic properties that may be eligible for inclusion in the NRHP (King 2004:363).

One might think that the Alaska OHA would be swamped with TCP nominations due to Indigenous Alaskans cultural ties with traditional land use. However, the OHA “receives two to three requests for concurrence on a finding of eligibility of a TCP per year. We [OHA] only concur in about 25 percent of the cases” (Ludwig 2006). A combination of factors, have been suggested as possible reasons for Alaska’s limited TCP nominations. First, much of CHM work in Alaska is done by archaeologists and architectural historians that are not familiar with the TCP process. TCPs are different than archaeological sites or historic architecture, making TCPs
harder to identify, people may not know what to look for. Secondly, it is easier to get a building nominated in Alaska then an archaeological site and TCPs are even more seldom (Garver 2006). The OHA seems to be reluctant to nominate TCPs for the fear of setting a precedent — the idea that if one TCP is nominated then it will pave the way for other nominations. It appears that there is a double fault occurring in which the OHA is reluctant to nominate TCPs and this makes cultural resource managers less likely to nominate because of the likelihood their nomination will be declined.

In 1992, the NHPA was amended to allow NPS approved tribal members to function as Tribal Historic Preservation Officers (THPOs) on tribal lands (King 2004). THPOs are intended to promote the participation of Indian tribes, Alaska Natives, and Native Hawaiians in preservation programs. In Alaska, there are no THPOs because ANCSA conveyed lands to regional and village corporations — with one exception, the tribal land of Metlakatla Indian Community of Annette Island (Ludwig 2006). The Metlakatla Indian Community could have a THPO but would have to first be approved by the NPS and they have not gone through that process. Stefanie Ludwig, an archaeologist in Review and Compliance at SHPO stresses that, “even though there are no THPOs, federal agencies, however, are still required to initiate government to government consultation with Tribes regarding federal undertakings” (Ludwig 2006).

Cultural and Ethnographic Landscapes

Professor and geographer, Carl Sauer, popularized the term cultural landscape in the 1930s in his works regarding cultural geography (Fowler 2003). As defined by Sauer (1926), “the cultural landscape is fashioned from a natural landscape by a culture group. Culture is the agent, the natural area the medium, the cultural landscape the result” (Fowler 2003:21). Over
time, cultural landscapes have become accepted and recognized as integral to heritage. One of the most notable contributions in the identification, documentation and commemoration of cultural landscapes is Parks Canada. Parks Canada based treatment of cultural landscapes on guidelines established by the United Nations Educational, Scientific, and Cultural Organization (UNESCO) (Bugghey 2004). Aboriginal cultural landscapes represent the relationship between Aboriginal groups and the spiritual/natural environment that may or may not be material (Parks Canada 1996).

As the policy implementing body for cultural resource management, the NPS influences the sites that are established as significant to American history, archaeology, architecture or landscape. In 1990, the NPS instituted the Cultural Landscapes Program defines cultural landscapes as, “a geographic area, including both cultural and natural resources and the wildlife or domestic animals therein, associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values” (NPS 1994). In Preservation Brief 36, the NPS classifies four types of cultural landscapes:

1) **Historic Designed Landscape**—a landscape that was consciously designed or laid… according to design principles. Examples in Alaska are Denali National Parks historic headquarters district, created as an attempt to provide visitors with a frontier experience, or the Denali road corridor.

2) **Historic Vernacular Landscape**—a landscape that evolved through use by the people whose activities or occupancy shaped that landscape. Alaska historical vernacular landscapes include the Kennecott Mine complex in Wrangell-St. Elias NPP and Seward’s red light district.

3) **Historic Site**—a landscape significant for its association with a historic event, activity, or person. The Moore homestead, at Klondike Gold Rush National Historical Park, in Skagway, Alaska.

4) **Ethnographic Landscape**—a landscape containing a variety of natural and cultural resources that associated people define as heritage resources. Small plant communities, animals, subsistence and ceremonial grounds are often components. Iyat (Serpentine Hot Springs) in Northwest Alaska is a sacred therapeutic site for Inupiaq residents…In Southeast Alaska Dundas Bay contains both prehistoric and historic remains and is a seasonal subsistence site for Tlingits from the village of Hoonah (NPS 1994; Mason 2004:50).
In 1992, the UNESCO World Heritage Convention established groundbreaking policy to protect and recognize cultural landscapes of “universal value”. The three categories for World Heritage Cultural Landscapes are as follows:

1) clearly defined landscape is one designed and created intentionally by man. ii) organically evolved landscape (a relict landscape or continuing landscape) results from an initial social, economic, administrative, and/or religious imperative and has developed its present form by association with and in response to its natural environment. iii) associative cultural landscape is a landscape with definable powerful, religious, artistic or cultural associations with the natural element rather than material cultural evidence, which may be insignificant or even absent (Fowler 2003:18).

The third category is shift away from traditional landscape identification and perception. The associative cultural landscapes are identified by cultural values, taking the focus away from the material realm. This category was difficult for some people to grasp and in 1995 the definition of associative cultural landscapes was further explained as, “physical entities or mental images, embedded in a people’s spirituality, cultural tradition, and practice…include(s) the intangible, such as the acoustic, the kinetic and the olfactory, as well as the visual” (Buggey 2004:21).

Indigenous landscapes are most likely to qualify under the third criteria, as associative cultural landscapes (Buggey & Mitchell 2002). UNESCO’s categories are nevertheless criticized for failing to move beyond the archaeological site concept. Secondly, World Heritage Cultural Landscapes are more likely to qualify for association with buildings, monuments, or natural features rather than for the sake of being a cultural landscape (Erickson 2003).

Archaeologists that are left wanting by traditional site based research models are turning to cultural landscapes (Mathers et al. 2005; Boyd et al. 2005; Altschul 2005; McIntyre-Tamwoy 2002). Indigenous people worldwide have long felt that ranking archeological sites by order of significance goes against their cosmology of viewing all sites as being interconnected components of a cultural landscape (McNiven & Russell 2005:186). Boyd et al. (2005) argues that the constructed meaning that results from an individual-site approach is a denial of cultural
heritage because it fails to emphasize the interconnectedness between humans and the environment.

For NPS the terms cultural landscape and ethnographic landscape are not synonymous; the two are distinct based on NRHP criteria and determinations of integrity (Evans et al. 2001). The differences are determined by how the landscapes are identified; cultural landscapes are identified by whether or not they are eligible for the NRHP. Ethnographic landscapes do not have to qualify under NRHP criteria; their existence depends on the social and cultural relationships to the landscape. The NPS applied ethnography program also recognizes ethnographic landscapes but defines them as, “…a relatively contiguous area of interrelated places that contemporary cultural groups define as meaningful because it is inextricably and traditionally linked to their own local or regional histories, cultural identities, beliefs and behaviors” (Evans et al. 2001:54).

Ethnographic landscapes can only be identified by the people who give them meaning, people who are historically and culturally tied to the landscape. This is a remarkable change because ethnographic landscapes are based on the meanings people give to place rather than being ascribed significance by archaeologists, historians or cultural resource professionals (Buggey and Mitchell 2002). The ethnographic landscape/seascape (Figure 6) presents difficulties for those working in CHM because they are often “symbolic landscapes,” incorporating multiple components that usually encompass vast amounts of land (Evans et al. 2001).

The requirement of identifying cultural landscapes according to NPS criteria is, “an uneasy fit, primarily because of the juxtaposition between the National Register standards and the fluid complexity of landscapes as evolutionary processes” (Horton 2004:70). The standard
complaint about NPS cultural landscape qualification is that it is like trying to fit a round peg in a square hole. Landscapes are also eligible for the NRHP as TCPs but still have to qualify under established National Register criteria (King 2003). Freedom from the constraints of NRHP criteria separates ethnographic landscapes from cultural landscapes and TCPs.

![Figure 6. Stacking net on Nushagak beach, 2015. Photo by Randy Billmeier.](image)

The importance of recognizing seascapes (Figure 6) and riverscapes as part of cultural and ethnographic landscapes is just beginning to be explored (King 2004; Maurstad 2004). In 2004, Thomas King determined that the Klamath Riverscape was be eligible for the inclusion in the National Register as a “cultural riverscape” and while it does not provide specific protections, it does mean that the historic or cultural value of the area must be considered in accordance with specific regulatory requirements by Federal agencies in reaching decisions about taking or not taking an action (King 2004). With the cultural significance of rivers and sea in the Bristol Bay area to commercial fishers as well as Indigenous communities one could
certainly argue that there are riverscapes and seacapes that would also eligible for the National Register.

Anita Maurstad (2004) believes that the documentation of FK about seascapes is even more critical than cultural landscapes because seascapes exist only in the minds of the users. The amount of knowledge that a person attains from navigating water about currents, tides, eddies, and sandbars can be invaluable. As well as, knowing where good subsistence fishing spots are and where not fish are all parts of a culturally built seascape. To give an example, when traveling the Nushagak River in Bristol Bay with an outboard prop motor you should be very careful not to hit any rocks. One rock could damage or ruin the lower unit of your motor — there are some people that have the river completely memorized and can travel at high speeds because they have the entire river mapped in their head. When the people are gone or the seascape is no longer used the cultural knowledge will disappear reverting to a “sea wilderness” (Maurstad 2004:290).

**Seeking Out Voices**

Particularly in Alaska and Northern regions, TEK is recognized as an integral component of sound and sustainable heritage management, yet alternative knowledge systems are still not adequately understood or appreciated. More than twenty years ago, Marc G. Stevenson spoke to the general confusion surrounding “Traditional”, “local”, and/or “Indigenous” knowledges, specifically what is it, how is it constructed and what role should it have in scientific research (Stevenson 1996). During this time, the NRHP, the gatekeepers of heritage management in the United States, defined “Traditional” as, “those beliefs, customs, and practices of a living community of people that have been passed down through the generations, usually orally or
through practice” (Parker and King 1998). This definition opened the prospect that TEK is Indigenous Knowledge (IK) but it also can be “local” knowledge (LK).

CHM depends on research to identify, establish and inform heritage values. Communities are diverse and ultimately the research approach chosen often dictates which voices and perspectives are relevant. When King, one of the leading consultants in CHM in the United States, suggests that we need to adjust static notions of resource management, we need to reevaluate how Section 106 is being practiced. King (2013:18) argues:

One may not think of the human activities that take place in the landscape—hunting, fishing, gathering, medicine gathering—as indicative of the place’s historical quality. One may not perceive the water flowing under and through the landscape as an element that contributes to its cultural significance. One may not perceive any of these things even if one is a professional archaeologist or historian employed in the historic preservation business. But on the other hand, one may perceive the cultural significance of such landscapes elements, and the linkages among them, and one can represent that significance, as it is understood by those to whose cultural identity matters, in terms that relate plausibly to devices like the National Register Criteria (King 2013:18).

In other words, to only approach CHM research with a western scientific methodology risks preventing the inclusion of Indigenous and minority communities’ cultural values. A point Dean Nicolai makes clear, “without the ability to participate, an Indigenous methodological perspective cannot contribute to archaeological understanding” (Nicolai 2012:86).

Research in CHM is directed by federal and state agencies that hire consultants to complete studies sometimes with little acknowledgement of how the prioritization of western scientific research as the only means of obtaining legitimate and valid knowledge neglects Indigenous and local knowledge systems. CE and IRP have emerged in the last decade to fill the void that is created when we neglect to allow people to tell their story, their way. Efforts to balance perceptions of heritage and how it is created, maintained, and preserved continues to be necessary to establish equilibrium.
Seeking out the voices, insights and opinions of individuals and communities should be the bedrock of environmental, historical and cultural preservation. However, research with a goal for high levels of collaborative community-based-decision making is often considered intensive, costly, time consuming and sometimes “less scientific.” Recent research in Alaska demonstrates that community-based research can be done effectively, in a timely manner, and that communities can remain involved after the data are gathered and disseminated (Lewis and Boyd 2012:9). High levels of community participation create deeper understandings and ensure a level of accuracy that is relevant to the community (Rivken et al. 2013).

There is a tendency in CHM toward what Thomas King calls an “archeo-bias,” which he defines as the “practice of narrowly focusing on archaeological sites and concerns, to the exclusion of other cultural resources and resource issues” (King 2002:148). Indigenous peoples in many countries often assert that Western notions of landscape are not equivocal to their landscape cosmology (Buggey 2004). To counter hierarchical perspectives some researchers, turn to critical research approaches oriented towards collaborative action, advancing human rights, social advocacy, improving common welfare, and power-sharing. The blossoming of perspectives allows movement beyond the archaeological site into a vast ethnographic landscape and seascape, where culture and nature interact. The transition moves us from a system that is based on the material to the realm of intangibles, the cultural knowledge that ties people to place.

Entire communities are at stake when heritage concerns are not equally managed. Efforts need to continue to balance perceptions of heritage and how it is created, maintained, and preserved. Much of heritage conservation to date is determined by students trained heavily in western scientific approaches. One set net fisher explains (Fisher Knowledge 2016):

Fishermen have fished for thousands of years. It is sensory experience of direct knowing. Science studies the world, catalogues, and labels. We hunt things you cannot see. I fish in the old way. You just know, it does not come from a scientific place. It is not found in meetings or testimony. It
is in the silence, the silence speaks. Science has not caught up with such dynamic human sensory experiences. Science would say it is a series of chemical processes, so it dismisses and discounts. But Science gives us a common currency of communication and allows for tangible discussions and in a linear fashion squeezes as much out of nature as possible. If Science could understand everything about fishing, then scientists would be the best fishermen in the world. [laughs] It has taken me 20 years to even get a clue and figure it out. You have to learn the language, it’s what is not said that matters.

**Potential Threats**

![Figure 7. Bristol Bay watershed and mining claims (Source: Trout Unlimited 2006)](image)

The 2010 U. S. Census has tabulated 4,847 residents in the Bristol Bay area. The Alaska Native population makes up about 3,470 residents, or 72 percent of the total population. Yup’ik, Aleut, and Dena’ina Athabascan are three distinct cultural groups in the region that is made up of 31 Tribes (BBNA 2011). “The region that contains the Pebble copper deposit (Figure 7) has porous alluvial soils, abundant ground and surface water, interconnected watersheds, undefined seismic faults, significant seismic activity, little buffering capacity, and high concentration of sulfides that are known to produce mine drainage (Woody et al. 2010). Worst
case, seismic activity could cause one or several of the tailings pond embankments to fail, decimating the fishery” (Braund 2011:24) The recent onset of large-scale industrial mining proposals as shown in Figure 7 in the Bristol Bay area of southwestern Alaska created an influx of graduate students, professional consultants, and scientific experts (outsiders); establishing a new era of research driven by large-scale development proposals.


The Pebble Limited Partnership, operated by Canadian Northern Dynasty Mines, Inc. (NDM), proposed to construct a large open pit mine and milling operation that would produce gold, copper, molybdenum, and silver (ADNR 2014). The Pebble’s proposed location is in Southwest Alaska, about 15 miles northwest of the village of Iliamna and Lake Iliamna, the largest lake in the state. NDM began the permitting process in 2004 and if allowed to proceed, it
would be the largest open pit gold mine in North America. An EIS was prepared in accordance with NEPA.

The Pebble Limited Partnership, causes concern because such a large-scale mine has the potential to adversely affect aspects of the Bristol Bay environment and cultures. As the Pebble sought permitting, many Indigenous and non-Indigenous peoples in the area are experienced CHM policy for the first time. Permitting became an ongoing process that brought many changes to the area, as community members and those intimately involved become stakeholders. Many voices struggle to be heard. Some speak louder than others, while others’ silent refusal to comment is an exercise in resistance. One community refused to participate in the Pebble mine EIS because the research was funded by Pebble mine (EPA 2012).

The Cultural Heritage program at the University of Montana sparked my interest to delve deeper into CHM policies and practice. My first semester of graduate school I was certain that I could use my CHM education to alter or prevent projects, like Pebble, that could potentially be harmful and unhealthy for current and future generations. I was disappointed to learn in Anthropology 451, my first introductory in CHM class:

- CHM law lacks any real teeth — there are rarely if any penalties for violating
- Lack of consultation — no clear guidelines for public participation
- Emphasis is on planning — not protection

CHM is about consideration, planning and mediation; there is nothing that says you cannot put a toxic tailings pond next to a salmon stream in perpetuity, if you make a “reasonable and good faith effort” to notify and involve the public at “the early stages of project planning” (36CFR § 800.1). I now recognize my naiveté and see my potential role in this process is in seeking out the voices, insights and opinions of individuals and groups. Advisor on historic preservation, Leslie E. Barras argues:
Community wisdom exists, and is often an un-tapped resource in both environmental and historic preservation reviews of projects. People may not recognize the name of or even care about the Advisory Council, the National Trust, or federal agencies. However, they do know their neighborhood, borough, city, pueblo, parish, or favorite place at a level of detail gleaned only by serving as a constant participant in life (Barras 2010:50).

To further understand the impacts of large-scale mining activities, and to address concerns of community members and stakeholders as part of the 404(c) Clean Water Act the EPA (2012) produced an “An Assessment of Potential Mining Impacts on Salmon Ecosystems of Bristol Bay, Alaska.” The only new research gathered for the EPA assessment was the “Traditional Ecological Knowledge and Characterization of the Nushagak and Kvichak Watersheds, Alaska” (2012) conducted by anthropologists Alan S. Boraas and Catherine Knott. Boraas is known for his work with and on behalf of the Dena’ina people of the Kenai Peninsula but with little available ethnographic material on the Yup’ik of the Bristol Bay region Boraas acknowledges the constraints of describing two distinct cultures in a 140-page document (Boraas 2012).

Should the waters and salmon of the Nushagak and Kvichak rivers become tainted, Boraas argues that Yup’ik and Dena’ina will experience devastating cultural, spiritual, nutritional health, economic and emotional losses; the most debilitating that they will no longer be a wild salmon people (Boraas 2012). When Boraas asked community members to define wealth in their community, responses were family, freedom and a freezer full of salmon and wild food. The EPA cultural assessment foci are clean water, wild salmon and Indigenous communities, while critical, this creates hierarchies and discounts the importance of fisher heritage, other wild foods and animals. When rather it is the interconnectivity and heterarchy or un-ranking that shapes the regions ethnographic landscape. This is what I understand to be a
fundamental predicament of how western scientific approaches prevent or misunderstand alternative perspectives.

Under former President Barack Obama in 2014 the EPA restricted Pebble Limited Partnerships permitting because the significant risk the mine posed to the watershed, wild salmon and Alaska Natives in the Bristol Bay region. The Pebble Limited Partnership responded by filing a lawsuit against the EPA. After a lengthy litigation, on May 12, 2017 the EPA announced that it agreed to settle the Pebble Limited Partnership lawsuit by reversing the protections previously put into place by the Obama administration. The Pebble Limited Partnership plans to apply for mining permits. Newly appointed by President Donald Trump, EPA Administrator Scott Pruitt said, “we are committed to listening to all voices as this process unfolds” (Martinson 2017). It is currently unknown if the Pebble Limited Partnership will be required to conduct additional research to include fisher voices that previously have not been recognized in over 10 years of environmental and socioeconomic studies that ought to inform the mine’s project design and permitting.

The western practice and policy of CHM supposes that all peoples equate value with “significance.” Criteria, material artifacts, and boundaries that are subjected to professional designations of value, significance, and integrity guide CHM in the United States. What is meant to be a public process, responsive to the voice of the people, often becomes about quantification (King 2004). Recent anthropological projects demonstrate the possibility of researchers and local community members working collaboratively to accurately and objectively portray the voice of the people (Bhattacharya 2008; Harrison 2001; Lassiter et al 2004; Nicolai 2012; Smith 2012). Scholars and CHM professionals are thus confronted with a challenge when attempting to integrate differing visions, agendas, and expectations into a singular text (Lassiter 2005). The
EPA recognizes that “it is important for us to hear many perspectives to make informed decisions” (EPA 2012) which means when anthropologists engage in research that speaks for others, getting the message right becomes extremely complex.
“From the outset, critical collaborative ethnography…requires careful attention to questions about the research situation itself and the researcher’s position within it — questions that would typically be omitted from a scholarly publication” (Bhattacharya 303:2008).

Such openness about positionality, as cited above by Bhattacharya (2008), is critical to the development of a deliberate and explicit critical ethnography. As a stakeholder/fisher and consumer/sharer of salmon and wild plants and berries of Bristol Bay I am neither complete outsider nor insider. It is integral for this dissertation project that I be honest and forthcoming about my own position in the world and why I support the development of critical ethnography that centers FK. One component that collaborative ethnographies share is a common vision on some level (Lassiter 2005:137). My individual background and education has uniquely prepared me, seldom do anthropologists turn the lens on themselves.

Anthropology does acknowledge an intellectual heritage that was founded upon capitalists, colonialists, and dominant males (Bennett 1996). CHM as practiced in rural communities throughout Alaska most often involves outside practicing anthropologists who are hired by clients to interview real communities. For the outside researchers and clients this is a job, for the community, it is their lived lives, voices, and feelings.

There is an inherent political nature to CHM. The power of decision making lies in boards that are politically appointed. Heritage values shift depending on Presidential agendas influencing how heritage is identified and protected is then subject to change. The result is that living communities and individuals whose lives and heritage suffer from economic and social inequalities and from the abuse of power relationships with corporations, states, and agencies.
This highlights the tenuous relationship between anthropology, politics, CHM, and society. To decolonize is to recognize that this power disparity exists.

As part of the Alaskan Cross-Cultural Case Studies from the University of Alaska Fairbanks, Harrison et al. 1985 completed a “team effort” case study of rural school development in Manokotak, Alaska. The study team consisted of one University of Alaska faculty member, two teachers in the Manokotak School District, the Speech and Language Specialist for the Southwest Alaska Region School District, and two Yup’ik-speaking residents of Manokotak (Harrison et al. 1985:67). Within the case study is a history of Manokotak that was prepared and written by Anecia Lomack, a member of the research team, a certified bilingual teacher in the school and lifelong resident of the community.

Lomack’s history of Manokotak is important to include for several reasons. First, it represents the knowledge, history, and culture experienced by Lomack and other Yup’ik peoples in the Bristol Bay region. Second, multi-vocality is introductory to a CE and to do so we “fully embrace the experiences of our consultants, their memories, and their stories, and to use our co-experience (as engendered by our relationships with one another…)” (Lassiter et al 2004: xii). Finally, like other scholars (Kovach 2009; Nicolai 2012; Wilson 2008) I acknowledge that I am sensitive to divulging sensitive oral traditions and will only include published and accessible research documentation.

As a researcher, I am perfectly capable of tracing a history through written accounts from Russian and American explorers, missionaries, government agencies and/or anthropologists but to do so only extends what Smith argues as the colonizing lens of the Other through the exclusion, marginalization, and denial of Indigenous ways of knowing (Smith 2012:71). Smith contends that to hold alternative histories is to hold alternative knowledges, “Indigenous peoples
Manokotak, Alaska, is located in the Bristol Bay area on the right bank of the Igushik River and on the lap of Manokotak Mountain. Air travel from Dillingham to our village takes only 15 minutes, making our village accessible to the entire world. Its village council has traveled to foreign countries for extended training in various areas. This enables the village to be very progressive.

Manokotak has built upon the background of productive Alaska. The Bristol Bay area’s growth has done much to ensure the success of Manokotak. This growth began in 1908 with the establishment of ten canneries in the Nushagak area which was coincidental to my mother’s birth (Betusia Doyola Alakayak).

This economic venture improved educational opportunities. My grandmother attended the first school built in Kulukak in 1911. She enjoyed this privilege for at least a year. Her marriage ended her modern education. Many people did similar things. The necessity of life and its duties took its toll. Larger tolls were taken by virus epidemics such as the major epidemic which took 50 percent of the Bristol Bay’s population. My mother lost many of her relatives, including her brother.

Some people lost other relatives and friends through drownings and shipwrecks when working for the fishing industries. My mom remembers stories about a big shipwreck in 1920 somewhere in the Aleutian chain. The boat must have been very large because many cases of food floated to Kulukak Bay. Among this food, they found flour, melted sugar, and canned food. They didn’t touch the canned food thinking it was food for dogs.

By 1920, people were becoming more familiar with the edibility of canned foods through the establishment of the 25 Bristol Bay beach canneries and numerous floating canneries. Among these floating cannery crews was Evon Minista (the man who founded Manokotak). The fishing industries were becoming prosperous. In 1922, power boats were introduced and immediately prohibited. By 1923, the competition has increased so drastically that fish traps were prohibited and gill nets were to be used. It became increasingly difficult to earn incomes through just fishing if you were a Native. Often the job opportunities seemed very closed to the people that needed them the most. Nature also seemed to be against the Natives. Epidemics took many lives. In 1931, the whooping cough epidemic took many, many Eskimo children’s lives.

As though this was not enough, the United States agencies began requiring more and more requirements – such as a requirement to have more than one name. In the old days, people used to have one name or one of many names that they were named after a deceased person. In the 1930s and 40s, all paperwork required at least two names, a surname and an English first name. Many of the people’s surnames were after their
father’s names like Alakayak, Kustegta, Itumulria, Gloko, and Toyukak. However, some people preferred to retain their birth names like Nanalook and Apalayak.

This brought about more and more aspiration among the Natives until 1937 when the Bristol Bay fishermen organized the Bering Sea Fishermen’s Union to force the canneries to hire local residents. With this union many people began fishing in their own boats. Mr. Minista was among these. The continuing economic growth was highlighted by the sod house maqis (steam baths) built.

By 1942, the commercial fishing industry had become the major economic source. Evon Minista and many others were having to relocate during winter months. He spent two winters at the end of Igushik River so that he could be nearer to his summer fishing grounds. At the end of 1947’s fishing season, the effect of World War II was felt when he could buy only a ration of one drum of gasoline. This wasn’t enough to get to Togiak to re-establish his family’s residence or to return to their winter home, so they began to search for a new winter home along the Igushik River. They decided upon the land that is now Manokotak. Manokotak suited this land because it is on the lap of the mountain. They managed to survive the long winter in this new place. The next fishing season ended with measles epidemics and in 1948, more people moved because Manokotak was closer to Kanakanek Hospital. They also found that there was sufficient amounts of wood near the village that would provide heat during the winter. They experienced an easier winter which contributed to their decision to settle permanently. That year, the Moravian Church was established in the new settlement. The Moravian Church is still a constant influence on their daily lives.

The World War II influence was still evident in the early 1950s. By 1953, the salmon run was slow. Many were unable to get enough meat and fish. They managed to survive the next few years. Slowly, the salmon began to return to the Bristol Bay area. By 1955, Manokotak had several individual electricity generators and one Bryant powerboat. Family stores began to spring up in several homes in the prosperous late 1950s. Another drawing factor was the establishment of the BIA elementary school in 1958. Many people came to Manokotak for many different reasons: easier winters, school, church, stores, near fishing grounds, and health services.

The health services were first offered by one of the teachers. In 1960, Manokotak obtained services from one of its local residents that had received health aide training in the lower 48 states. The 1960s also brought Manokotak’s first sno-go and first village council. By having their own government begun, they discovered they needed some help, so through a government sponsored program, a Vista volunteer came to help train the local people in running their village. This training brought organization to make Manokotak progressive. The 60s brought village electricity which changed their lifestyles. No longer were they dependent on flames for light. No longer did sunlight dictate their activities.

The 1960s brought many changes which included the Alaska Human Rights Commission, the land freeze, food stamps, and Native Corporations. These changes affected many
people differently. Some were greatly aided. However, the Native Land Claims were not settled. The Native Associations became very influential through establishment of cooperative stores, airstrips, and mineral rights. The airstrip built in Manokotak during the summer of 1968 acted as a catalyst in continuing the education of Manokotak’s first graduates. Air travel from Manokotak made it possible to establish a federal government post office. The increase in mail circulation and personal travel increased communications. Thereby, the oil discovery was known in Manokotak and many rumors and thoughts concerned the 1967 legislation on mineral rights. Everyone was contemplating a prosperous era. In 1969, Manokotak sprouted the first aluminum skiffs, television sets, and three wheelers. Prosperity was very visible. The anticipation of settled land claims and oil exploration bolstered the Manokotak economy. Many people began to concern themselves with maintaining their heritage so in 1970 the Kuskokwim area let the Yup’ik Eskimo dialect in to their schools. A year later, Manokotak initiated a similar program.

Manokotak began developing better housing through a state program called Alaska Housing. Eighteen houses were built in 1970 and water and sewer were added, opening the housing for residents. By late 1971, all houses were occupied.

The end of 1971 brought settlement of Alaska Native Land Claims. This Act granted 40 million acres of land and nearly a billion dollars to the claimants. Alaska soon became flooded with lower 48ers seeking their fortune through pipeline service, facilities people, occupations, fishing, and possible marriages for profit. Manokotak, not unlike other settlements, began establishing stricter controls on their village, school, and economic sources; their village council, community school committee, and native associations were used to protect their values.

From 1959 to 1973 Manokotak School was operated through BIA. Then, from 1973-75, it was operated by the Alaska State-Operated School System (ASOSS), and it changed its operational title to Southwest Area Schools. I began working as a bilingual instructor here in Manokotak under the BIA instruction. Then, when it became an ASOSS school, everything was very chaotic. Everyone was new to the system, and few policies had been established. I am now working under Southwest Region School District which is much better than ASOSS school in the Unorganized Borough. The village and I agree that the change stimulated our students’ quest for education.

Many people grew anxious for communication. In 1974, this anxiety brought graveled roads and CBs (citizen banded radios). By 1975, the desire for communication brought Manokotak the village phone. Now parents could talk to their teenagers who were away. People could make reservations, order and clarify things through the telephone which was much faster than mail. The increased use of telephone brought more communication about the Molly Hootch case.

By law, every village was required to provide a village high school to any one (school age) requesting it. Constructing on Manokotak’s high school began. Many families enrolled their secondary students in Dillingham City Schools, so that the students could
return home at the end of the construction period and be present at the opening of the new high school. The high school opened its doors to the high school students in February of 1978. In a very short time, students began returning to the village. The village was unprepared for the full-time requirements of a teenage population. The CSC and school district began organizing community activities like JOM (Johnson O’Malley Program), Indian Ed, and recreational nights. The curfew hours were now strictly observed even more (curfew has continued since the 1960s). However, the introduction of video machines (videocassette recorders) in 1980 lessened the probability for rest at night. Many parents had to set limits on the TV viewing so students could function in school. The latest innovation is the 24-hour satellite TV. To me, satellite TV is a deterrent of values, responsibilities, and education. I’m finding that people are beginning to worry. Maybe soon, they’ll find guidelines for their children.

History is selective, incomprehensive, and therefore not wholly or truly representative of the past. “Science is universal, but human beings do it so that means it’s historical, and it could have been otherwise, and it’s contingent” (Rabinow et al. 2008). Scholars today recognize the contested nature of history and many have devoted their work to rediscovering the daily lives and practices of under-documented peoples (Lightfoot and Martinez 1995; Lightfoot 1995, 2006; Deetz 1996; Dixon 2005; Fennell 2007; Novak 2008). Indigenous scholars argue that for Indigenous peoples’ worldwide history has been used more as a weapon than a knowledge-building tool (Smith 2012; Wilson 2008). Smith (2012:35) argues, “history is not important for Indigenous peoples because a thousand accounts of the ‘truth’ will not alter the ‘fact’ that Indigenous peoples are still marginal and do not possess the power to transform history into justice.” To decolonize the past we must recognize alternative histories and honor oral traditions.

All peoples do not have written history. However, all humans have language, since we do not speak the same languages or come from the same places there are concepts that are not shared. Since not all cultures are writing cultures, to reach an understanding of what people need requires respectful and appropriate conversations. Conversations are guided by the voices we seek out and the ways of knowing that we legitimize. It is important for anthropologists to
recognize that even though we have the best intentions to be accurate and honest what we present is still an interpretation. Simply acknowledging that history is selective, is an obvious but integral admittance.

*Finding Common Ground*

For CHM and anthropology to stay relevant to Indigenous communities and society, Louis (2007) argues that we as scholars need to make more space in academia by supporting and publishing IRP. Karen Brodkin et al. (2011) notes that Indigenous theory remains in the margins in the United States because Anthropology Departments continue to be an internally white public space, which are resistant to accept critical paradigm changes.

In western academic writing, it is traditional to have an introduction, followed by your argument or question and supportive and/or counter peer reviewed publications and ending with a summation of points or a conclusion. For many students in academia we have been conditioned or have learned to scan a document to glean what may or may not be of use in our research so we can substantiate our argument effectively and efficiently. And so, we are taught that research occurs in a certain way, and if we accept this and continue in that tradition we reproduce and reinforce that this cycle is not only acceptable but also superior and legitimate. It is at this point that Indigenous scholars often are faced with making strategic concessions as to just how to express an Indigenous epistemology and methodology within the current research landscape (Kovach 2009). As a non-Indigenous scholar, I am in support of shifting research so future Indigenous scholars no longer must feel like they are like a salmon swimming against the current and that their only option is to exchange their tribal epistemology to pursue western research on western terms (Panipetchuk 2006).
I find Figure 8 by, Ray Barnhardt and Oscar Kawagley, to be very helpful in understanding some of the qualities often associated with traditional (Indigenous) knowledge systems and western science (Barnhardt and Kawagley 2005:16), although I would also stress that this is one representation and there is no all-encompassing Pan-Indigenous approach.

Sixteen distinct Indigenous Knowledge and language systems are recognized in communities across Alaska (Barnhardt and Kawagley 2005). Barnhardt and Kawagley (2005) argue that “much of the Native knowledge systems, ways of knowing, and worldviews remain
intact and in practice, and there is a growing appreciation of the contributions that IK can make
to our contemporary understanding of resource management…” (Barnhardt and Kawagley
appears from a Yupiaq perspective illustrating that there is more than one way to understand the
world. According to Kawagely, “most Indigenous peoples’ worldviews seek harmony and
integration with all life, including the spiritual, natural, and human domains” which is contrary to
western sciences fractionalized detachment (Kawagley 1995:3). While it is challenging to
synthesize, and converge Yupiaq ways of knowing and western science Kawagley believes to
do so assists in better understanding the world and that the sharing of knowledge today
determines the sustainably of tomorrow.

IRPs are increasingly being used and developed worldwide (Smith 2012; Wilson 2008;
Koster 2012; Kovach 2009; Getty 2009; Smith 2005; Louis 2007). In this ongoing process,
Graham Hingangaroa Smith (2005) argues that guidelines are being established that help to
distinguish what counts as ‘indigenous theorizing.’ At a minimum Smith (2005:7-8) has outlined
a set of conditions that he suggests are the first steps towards ‘indigenous theorizing’:

i. It is connected to a specific cultural location and site (contextual); it is tested in practice;
ii. It is organically connected (made with people, not just in the academy – is reflected on and
grown through praxis).
iii. The person proposing the claim to ‘theory’ has some cultural skills and is able to connect with
the epistemological foundations of the knowledge, language and culture related to the people to
whom the theory is applicable (cultural skill)
iv. It is transformative (status quo is not working – must focus on change.
v. It is portable (rather than universal)
vi. It has the flexibility to critique and renew itself (praxis)
vii. It is engaging of other theory, able to justify its existence (movement toward theory not away)
viii. It is Critical (able to engage new and traditional formations of colonization – colonization
from external forces and internal colonization already working within and through ourselves
ix. It is responsive to multiple sites of struggle and engagement (flexible)
x. It is easy for people to understand (speaks to people)

Smith (2005) reiterates that Kaupapa Maori approach is meant first and foremost to positively
improve Maori lives and transform social and economic conditions.
Opaskwayak Cree scholar Shawn Wilson (2008) describes another version of an IRP shared by Indigenous scholars in Australia and Canada, where research is a ceremony. Wilson describes that what many Indigenous peoples share is a relational view of reality, knowledge is the sacred relationships with the land and environment, the cosmos, ideas and thus does not belong to individuals. Wilson describes that Indigenous research is a life changing ceremony and must be respected as such:

1. the shared aspect of an Indigenous ontology and epistemology is relationality (relationships do not merely shape reality; they are reality). The shared aspect of an Indigenous axiology and methodology is accountability to relationships. 2. The aspects of relationality and relational accountability can be put into practice through choice of research topic, methods of data collection, form of analysis and presentation of information (Wilson 2008:7).

With an efflorescence of Indigenous research in the last 10 years I believe we are experiencing another shift occurring in multiple academic disciplines whereby scholars challenge the authority of dominant western systems and demand space for the expression of unique knowledges. We can certainly expect this space to grow as more Indigenous peoples strive and succeed in recovering their own stories of the past, languages and epistemological foundations (Smith 2012).

**Shift Authority**

Julie Kapyrka and Mark Dockstator (2012) illustrate how a “two worlds” approach, where Indigenous and western worldviews are braided together, decolonizes environmental education and creates a deeper heightened level of understanding between Indigenous and non-Indigenous peoples. To uphold a “two worlds” approach non-Indigenous and Indigenous educators would need to incorporate this pedagogy into their curriculum requiring many to make radical changes (Kapyrka and Dockstator 2012). Rosemary White Shield argues change alone is insufficient and that “at the heart of these changes, however, one guiding force must be present. This force
cannot be mandated, directed, or designed. This force is *caring*.” (White Shield 2003:106). White Shield’s words resonate, perhaps it is because western research shows contempt for caring, that instead what we are supposed to strive for is a sort of detachment from this force and meanwhile overlook that Indigenous and minority peoples often suffer from disproportionally high rates of suicide, alcohol abuse, violence, incarceration, and death.

For those of us educated in the United States we are often familiar with a western scientific perspective while centering IK remains less well understood. I purposefully and intentionally made myself open to listening to multiple voices that speak towards a vision of the world where Indigenous thinking is truly accepted as “separate but equal.” To privilege western thinking with an insufficient understanding of IK is a biased approach and ultimately sacrifices multiple voices and perspectives. Inna Rivkin et. al (2013) argues that American Indian and Alaska Native communities shoulder a disproportionally high burden of stress and trauma. Post-colonial processes such as, coerced boarding school attendance, losses of languages, lands, and lives experienced by Indigenous peoples is argued to consequentially contribute to inter-generational chronic trauma, stress and unresolved grief. Violations of trust in research with minority and Indigenous peoples, can deeply harm communities and ignite lack of trust, reciprocity and respect. The result of growing mistrust in research makes many Indigenous peoples reluctant to participate; creating unequal access to research that could be beneficial (Garrison 2013).

Joyce Caldwell et al. suggests that it is possible, if there is an informed understanding of colonial trauma and stress to develop cultural competent research with principles from community-based, collaborative, participatory action research. According to Caldwell et al. the outcome of such research approaches can transform research from being a cause of trauma to
being a source of healing (Caldwell et al. 2010:11), thus creating a space for what Michael Hart (2010) explains as the most cited value of Indigenous peoples, respect. This may seem like common sense, yet in academia when Indigenous scholars attempt to resolve this disparity the space to do so is often “uninviting” (Kovach 2009:29). In spite of this and perhaps even because of this, Indigenous knowledge systems have begun to shift from the “margins to the center”, improving understanding of diverse human values, empowering locals, and reaching a broader audience because they are clearly expressed and relationally accountable (Wilson 2008).

What many Indigenous scholars speak of that is missing in the western research approach is that many Indigenous peoples, “share the philosophy that learning must enable the heart, brain, body, and spirit to collaborate to evoke an outpouring of critical thought and personal transformation” (Anuik et al. 2012:75). One example of the heart-mind paradigm is cited in Anuik et al. (2012:68):

1. The Aboriginal worldview is holistic — we are Spirit, Heart, Mind, and Body 2. We are a part of Creation; we are not separate from it 3. We all have a purpose for being here and we have gifts from the Creator that are to be used for fulfilling that purpose and 4. Everything is/has Spirit/Energy. We need to be mindful of our feelings, thoughts, words, and actions. What we put out there affects everybody and everything else.

Some argue that what needs to occur is that all researchers must obtain a level of cultural competency to develop and understand the principles that are basic to culturally respectful and appropriate research activities (Caldwell et al. 2005; Papadopoulos 2002).

The Alaska Native Knowledge Network has compiled a list of values that many Alaska Native cultures share:

1. Show Respect to Others - Each Person Has a Special Gift
2. Share what you have - Giving Makes You Rich
3. Know Who You Are - You Are a Reflection on Your Family
4. Accept What Life Brings - You Cannot Control Many Things
5. Have Patience - Some Things Cannot Be Rushed
6. Live Carefully - What You Do Will Come Back to You
7. Take Care of Others - You Cannot Live without Them
8. Honor Your Elders - They Show You the Way in Life
**Listening Carefully — Researcher Preparation**

I began my dissertation expecting that a CE had all the components that would ensure my research would be reciprocal, respectful, and ethical. What CE lacks is that it does not provide the same opportunity for Indigenous perspectives that is emphasized in distinct IRP. The problem that I have encountered and that has been present throughout my education and this dissertation is that the cultural phenomena of western academia restricts Indigenous peoples’ intellectual self-determination and it seems we have yet to move beyond the paradox of Indigenous higher education (Harris 2002). A change is necessary to reframe research, we need new tools and innovative approaches that are accessible, understandable, community created and driven, collaborative and culturally sensitive and appropriate. A critical step for the positive development of academic disciplines is acknowledging IRP (Kovach 2009; Louis 2007).

**Hearing the Rain**

In arid eastern rural Montana, when I was young I could always smell the rain coming. It is called petrichor, a particular scent that is emitted when rain falls on dry soil. The skies would darken; the wind would pick up sending tumbleweeds and dust dancing down gravel roads into barbwire fences. In Alaska, it is not the scent of the rain that I notice so much as the sound. When my husband and I were in our early twenties we relished in the sound of rain as it hit the flat roof on the old dilapidated barge that was our seasonal fish camp home. As summer salmon fishing days blurred by, the roof began to leak above our bed.
At first I tried buckets, bowls, and containers strategically positioned in hopes that when we returned from fishing salmon our sleeping bags and yellow foam pads would be dry. The leak grew larger so I strung a blue tarp above our bed, a temporary fix, but then such a bulbous amount of rainwater accumulated the tarp nearly split. I realized then it is hard to enjoy the rain when you are so focused on the leak. This was my moment of self-location tonight, as I sit here in Homer, Alaska listening to rain hit the tin roof. If I were to explain what I have come to understand through my research into the work of Indigenous scholars on the nature of IRP, it began with Indigenous voices that at first started like light rain drops, tapping then growing into testimonios and eventually a thunderous flooding to where there is no ignoring it for me.

What do you hear when you listen to an excerpt from Ilka Panipotchuk’s thesis (2006:28)?

The question that this elder asked me is an unpleasant reminder of western knowledge, values, and theories that I have been taught. The elder’s question was “after a short time that you have visit with us, fish with us, ate with us, will you tell your story, through the eyes of an Inupiat or the white man?” Her question was genuine, how could I be objective, utilizing the methods of research that I learned in the western academy. Even as an Inupiat woman I had no right to represent their community, because I do not speak the language and have never lived in their community. How would my research project benefit the community? The community did not come up with the research question. Who was I to know what was best for the community.

What do we say to Sande Grande (2000:347) when she asks, “where are the points of entry and pathways of sustainability for a young Indígena, a critical theorist, committed to Indigenous knowledges and the construction of a new Red Pedagogy?” Grande and others have been speaking out for Indigenous knowledges for over 14 years, certainly we have had enough time to create such pathways and then I read Tina Marie Woods recent dissertation results (2013:81):

With further similar research, perhaps indigenous practices such as TCs [talking circles] will eventually be found as valid, legitimate, and effective as Western forms of healing; and perhaps indigenous practices will eventually also receive the same level of respect, attention, recognition, funding, and support as their Western counterparts.

Indigenous community members argue that research needs to be reformulated,
It has been close to one hundred years that outsiders first traveled throughout rural Alaska and began their authority over, to name a few, spiritual beliefs and education systems that were already in place. Fish and wildlife regulations and management further enforced the Western rules and standards. For many years’ westerners came into the communities with their agendas of how things will be done, including research. How many times has a researcher come to the community without an agenda and asked 'how can we work with you, what are your needs and concerns, and how can we work with you to address these?' (anonymous in La Vine 2010:102).

Indigenous scholars are clarifying how western theoretical perspectives are culturally incongruent with Indigenous thought and reality,

Indigenous peoples have Indigenous paradigms and these paradigms perceive and understand knowledge and power fundamentally different than Western alternative paradigms. I think it is our own paradigms our own decision making processes, and ways of generating new knowledge that hold the greatest potential for finding solutions to our contemporary problems. We have our own philosophies, theories of knowledge, methodologies and methods (White Shield 2003:52,70).

Just as I was unable to stop the leak, I am similarly unable to ignore the voices raining down.
Anthropology is deeply rooted in the search for answers to fundamental questions about the human experience. The beginning of the 19th century initiated the establishment of modernism in the United States. Modernity in this sense made the promise that problems can be answered with science or natural order. Science was regarded as the most reputable form of knowledge, the epitome of truth and reason. The central focus of modernism was to know the world, and this could be achieved through the ordering and classifying of its parts. When this focus was applied to the study of human beings, western objective scientific knowledge became a tool to classify and rank humanity.

It was during this period that American anthropology was emerging, in the midst of the, “rise of American imperialism and the institutionalization of racial segregation and disfranchisement” (Baker 26:1998). Herbert Spencer (1820-1903), Lewis Henry Morgan (1818-1881), and Edward Burnett Tylor (1832-1917) are early examples of how anthropology applied an evolutionary framework to reconstruct the past to identify the progress of human beings. Turn-of-the-century anthropology responded to these questions by devising theories of biological and social evolution, ranking humankind according to perceived levels of progress. By reproducing and reinforcing the idea that humans progressed from savagery to civilization, the ‘fathers of anthropology’ provided the public with the scientific authority to justify racial and sexual inferiority.
Early anthropology often constructed in the minds of white men, provided explanations for humanity with theoretical complexities that bordered on or can be considered blatantly sexist. Western research gone bad has long been a tool and played a pivotal role in constructing ideas of racial and sexual inferiority. As the 19th century progressed anthropologists began to counter the very ideas the field was originally based upon. As more women integrated into the discipline the androcentric perspective of the past was questioned and feminist anthropologists began to demand equal consideration for the study of women and gender. It became clear that to get a holistic view of the world and its diverse cultures anthropology would have to shift away from male centered biases. Feminist anthropology emphasizes that women and men should be considered equally important when trying to fully explain the human experience.

The feminist anthropology conducted in the 1970’s attempted to explain perceived human universals, particularly the subordination of women. Ten years later the direction of feminist research would break away from the study of universal sexual asymmetry, focusing research on analytical concepts of gender construction (McGee and Warms 2007). Another shift would occur when black feminist scholars questioned white feminist scholars authority for speaking on their behalf (Lassiter 2005). Involvement in the development and substantiation of racial and sexual inequality, has given rise to some peoples’ mistrust of anthropological research. Smith argues that the “ethnographic ‘gaze’ of anthropology has collected, classified and represented other cultures to the extent that anthropologists are often the academics popularly perceived by the Indigenous world as the epitome of all that is bad with academics” (Smith 70:2012).

Critical theory enables further understanding of issues of power imbalances and identity. The goal of critical multiculturalism is that through inquiry into oppressive systems we can work
towards transforming ourselves thereby enhancing the well-being of earth’s inhabitants.

According to Kathleen Fine-Dare (1998:ix-xi), critical multiculturalism is based on a number of principles, including: we all live in a *multicultural* world, acknowledging that what we believe to be normal, natural or even historical is something learned and *constructed*, every subject (I, you, they) is a *positioned subject*, each of our realities is colored by the places we have stood all our lives, to “decenter” our biases is to stand back and look at ourselves through the lenses of others. Personally, as an anthropology student this helps me to understand the historical and social concepts of the created category of “Other” and that while I always look for inherent biases in my own and others’ Euroamerican and American traditions, I also must avoid a patronizing proneness to romanticizing the vast diversity of cultures that I know little about.

What was considered socially normal or acceptable from the past to present day highlights societies influence on social processes and the constantly changing norms of what is considered just and ethical. The history of anthropology is comprised of a series of revolutions in theoretical thought that for the most part can be associated with individuals and their external historical conditions. In 1948, anthropologist Sol Tax introduced action anthropology, incorporating the principles (i) that people should be free to make their own decisions and hence mistakes and (ii) that the proper role of the anthropologist is to facilitate communication and decision making rather than direct it (Rubinstein 1991:175). Tax created a theory of knowledge use that called for building links between research and action (Chambers 1987), taking a stand against injustice and inequity and rejecting collaboration with organizations of power (Bennett 1996). “Tax reports that his view was, and remains, that in the normal process of the development of theoretical anthropology, work on practical problems presents an opportunity for the development of new, more powerful theory” (Rubinstein 1986:271). Although Tax’s
approach did not have widespread success throughout the discipline of anthropology, it does offer the opportunity to challenge the role that anthropology makes towards enhancing our society through changes in public policy, for instance (Rubenstein 1986).

There is a re-emergence of action researchers who are dissatisfied with where we are and seek change by generating knowledge through an explicitly political, socially engaged, and democratic practice (Brydon-Miller et. al 2003). These are empowering theoretical discussions that question the status quo by first building awareness of the cultural and historical past and present of what we think we know and how we think we know it and then going a step farther to bring about positive social change.

The only way to identify ethnographic landscapes is to bring together the knowledge of the people who give them meaning in the first place (Evans et al. 2001). To meet this need, requires research. Such applied ethnographic research is often conducted by the NPS or CH managers that interpret landscape notions based on the legislative guidelines developed through CRM laws founded on Anglo-American perceptions and definitions of landscapes (Eide 2009).

There are Indigenous and non-Indigenous commercial set net salmon fishers at Nushagak and “rarely has the worldview and value structure underlying the way Indigenous people look at such issues been examined and an attempt been made to approach the issues from an Indigenous perspective” (Kawagley 1995:3). This same statement could also extend to fisher communities. To approach research differently, I discovered that research begins with the researcher, and I must consider, be conscious and accountable to community concerns that are not often discussed or agreed upon.

My first ‘real world’ experience with applied anthropological CHM research in Indigenous communities was in the Bristol Bay region of Alaska, for an Alaska firm that
specializes in sociocultural studies. While working, I was involved in subsistence mapping and TEK interviews. In all, a fellow anthropologist and I participated in a total of 63 interviews with 86 different people in seven remote Alaskan communities. I learned a great deal about forming research relationships and recognized how deeply subsistence is intertwined with culture, language, identity, and self-determinism. This unparalleled research experience exposed me to the cultural significance of Indigenous knowledges, worldviews, subsistence, and language retention. In addition, I became aware of the difficulties that can be associated when ‘research’ and ‘researchers’ enter communities with a research goal, even if it is meant to benefit the community, there is a legacy that comes with research and for many Indigenous peoples it is one of harm.

I am passionate about supporting and educating about IRP. It is critical for researchers to attempt to comprehend the lived context for Indigenous peoples and other marginalized knowledges, otherwise we reinforce or repeat mistakes from the past (Smith 2012). Consider this statement, “American Indian and Alaska Native people are some of the most studied groups in the United States,” (NCAI 2012). If Indigenous scholars and communities are identifying ways that research relationships can be improved, then it is our responsibility as scholars to listen. The story that follows is my experience of doing that very thing, internalizing and learning about ways to improve research for all living peoples.

Indigenous methodologies (IM) are described as both qualitative approach and not (Kovach 2009), and therefore do not necessarily take on a one-dimensional, linear, compartmentalized, analyze and reject or deny standard research framework. There is a current trend in research regarding collaboration and integration of IM with other theoretical approaches. IM and modified grounded theory (Denzin 2010, Kovach 2011), IM with geographic research
(Louis 2007), Community Based Participatory Research and IM (Thompson 2008), each approach seeks to change research from working ON to a contemporary form of working WITH and FOR (Koster et al 2012) which is also explicit in CE (Lassiter 2005; Campbell 2011). Pulsifer et al. (2011) provides an example of how something as seemingly established in western science as data management program researchers can incorporate IM. While some see this integration as a positive step others believe that IM should be able to stand on its own (Kovach 2009; Rigney 1999; Smith 2012; Wilson 2008;).

By initially involving the community as co-intellectuals in the project using the methods and theory of CE enhanced with an IRP (Wilson 2008), a number of methodological, theoretical and ethical issues can be mitigated. These include not only the general matter of distrust when Eurocentric/Western/scientific/universalist assumptions regarding truth and knowledge claims are imposed, but also the inefficiencies in problem solving when the community in question is not consulted from the beginning regarding their needs as how best to involve locals in addressing them.

Methods

Prior to leaving for the 2015 commercial fishing salmon season, I reviewed literature on TEK and FK as well as background information on the history of Nushagak Point (Nushagak), Alaska. Additionally, I reviewed oral history and qualitative method sources to identify methods for analyzing textual data gathered from fisher interviews (Bernard 2006; Lassiter 2005; LeCompte and Schensul 1999; Vasina 1985; Yow 2005) I acquired information from the National Archives, which holds extensive photo documentation of the United States Fish Commission Steamer Albatross’ voyage to Nushagak Point in 1900-1901.
The work of James W. Vanstone (1972) provided an excellent source of information of the settlement of Nushagak up to 1969: thought to be first founded as Russian Trading Post in 1818, the first site for a Russian Orthodox church in Southwestern Alaska in 1860, impacted heavily by the influenza epidemic of 1918-1919, and the rise and demise in 1930 of the salmon canneries Pacific Steam Whaling Company and Alaska Fisherman’s Packing company. Vanstone notes that there was one remaining family at Nushagak in 1969.

Today, there are no families that reside at Nushagak year-round and what was once, “the most important settlement in the bay area in the 19th century” (Vanstone 1972:22), is now a seasonal fish camp for commercial set net salmon fishers as seen from above in Figure 9. In addition, as part of the Cultural Resource Program of the National Park Service, John B. Branson (2012) has written a detailed account of the life and times of John W. Clark of Nushagak, Alaska.
1846-1896. Branson’s work augments Vanstone’s and provides further documentation of the importance of Nushagak in the development of the commercial salmon industry.

There is little published information on the contemporary formation of Nushagak as a seasonal commercial salmon fishing community. The most current published research came from fieldwork that occurred in the summer of 2014, an anthropology Masters student, Julianne E. Meyer joined a set net crew and conducted interviews at Nushagak regarding the gender dynamics of the occupation of commercial fishing as expressed by female commercial fishers at the annual FisherPoets gathering in Astoria, Oregon (Meyer 2015). A few years earlier Ryan Kelty and Ruth Kelty (2011) conducted interviews and collected surveys that focused on the human dimension of fishing and the potential impact of mineral development of the proposed Pebble mine on the identity of the fishers.

In early June, I flew to Dillingham and spent time in the PAF boatyard for a period of observant participation to document how fishers are preparing for the upcoming season (Tedlock 1991, 2005). “During participant observation ethnographers attempt to be both emotionally engaged participants and coolly dispassionate observers of the lives of others. In the observation of participation, ethnographers both experience and observe their own and others’ co-participation within the ethnographic encounter…both the Self and Other are presented together within a single narrative ethnography” (Tedlock 1991:69). Fieldwork at Nushagak used similar ethnographic procedures: observant participation, conversations and semi-directive ethnographic interviews (Huntington 1998). The intent of fieldwork was to: (1) establish baseline history of Nushagak and social dynamics of local fishing culture; (2) document observed FK. Because of the intensity of the commercial salmon season I was flexible in regard to interviews. Some interviews took place in my cabin, others occurred in fishers’ cabins and one focus group was
outside on the beach (Figure 10). Interviews were audio recorded upon consent of research collaborators.

From my home in Homer, Alaska I organized field notes and transcribed audio recorded interviews. I collaborated with Stephen R. Braund & Associates in Anchorage on entering/analyzing field data. Additional conversational interviews occurred during the 2016 commercial salmon fishing season. This research was self-funded and because of this and the flexibility given by my academic advisor and dissertation committee I was able to explore heritage research in an alternative way. I have practiced CHM as it is presently being carried out, whereby much of the data is gathered through surveys or a single structured or semi-structured interviews, often conducted by researchers who live outside the host community.

**Student Background**

The problem is that even today many ethnographic texts are not written in a way that allows the reader to understand how they were created. They appear simply to have sprung up from nothing, like mushrooms after rain (Cronk 2004).

Each summer myself and other “Nushagakers” subsistence catch, process, smoke and can salmon, and take great joy in sharing salmon. Some families also harvest caribou and moose, we pick fireweed, cloud berries, blueberries, and crow berries and medicinally use wormwood and willow bark. I am not arguing that my knowledge is equivocal to Indigenous residents, my
experiences are like a grain of sand in comparison, but I do feel that I am uniquely qualified as a researcher to contextually create a space where fisher co-researchers and I can engage in deeper meaningful exchanges because of years of shared understandings and activities.

In 2007, my family participated in a documentary film called Red Gold that has since been adapted for PBS Frontline, in hopes that our efforts would educate the wider public about the potential cultural and environmental implications of the proposed Pebble mine. Alaska is my home for the foreseeable future. While, CE and IRP may be marginalized academically because, for example, some anthropologists, “still equate such collaboration with apology, with “going native”, with social work, and do not consider it serious ethnographic research” (Lassiter 2005:149), I believe that CE and IRP contribute to research that strives to be more respectful, ethical, and useful. Proposing research within my own community entails a sense of obligation towards maintaining and honoring relationships.

There has been much scholarly debate in anthropology regarding how much of the Self is appropriate to reveal. Historically, anthropology was founded on describing cultures, ones that often were not “ours” and there grew a conceived dichotomy between “us” and “them.” Many Indigenous cultures became reluctant to share knowledge with those anthropologists that acted as cultural gatekeepers. Conversely, there are anthropologists that are criticized for being soft on theory, fluffy, navel gazers that dwell too much on their own personal experiences. While others argue that this type of reflexivity offers the opportunity for us to self-examine the discipline (Strong 2005). Despite the divisions within anthropology and among anthropologists it is becoming customary for contemporary ethnographers be explicit about their background (Bauer 2004:5).
Shawn Wilson believes that a detailed explanation of personal background is critical to building and honoring relational accountability (Wilson 2008). The foundation of an IRP begins by fostering respectful and reciprocal relationships emphasizing how knowledge is an ever-going process that is shared relationally, not individual and thus belongs to all creation (Wilson 2008:56). As a non-Indigenous researcher, I am not exempt from the responsibility of relational accountability. Like other non-indigenous researchers engaging with Indigenous and local communities I intend to build sustainable partnerships based on trust, respect, humility, flexibility and relational accountability (Brophy 2012:93). The critical collaborative ethnographer approaches this explicitly by critically examining the Self and how our ethnicity, sex, gender, class, personal experiences, influence every facet of our being, including our work (Bhattacharya 2008; Lassiter 2005; Campbell 2011).

On a personal level, every summer my family travels to Bristol Bay to commercially set net salmon for our livelihood. This area is important to me for personal, cultural, economic, intellectual and activist reasons. The lifestyle of set net fishing gives me a sensual and deep connection to the area and although seasonal, a familiarity, with the ebb and flow of living on Bristol Bay. I have witnessed deep moments of human altruism but am still troubled by the disparity that exists between local and non-local, men and women, professional and amateur, western science and Indigenous and local knowledges, political policy and lived realities.

Although not a comprehensive list, the following represents what I considered throughout this dissertation:

1) Being true to relationships (Wilson 2008; Kovach 2009)
2) Producing anthropological information that is easy to understand and apply
3) Rooted in activism and the production of understanding (Campbell 2010)
4) Shows an understanding of local communities, its multiple perspectives, and comprehension of the co-constructing knowledge and meaning
5) Continuous local involvement for long-term sustainability
6) Collaboration at all levels
7) Observant Participation (Tedlock 1995)
Critical/Collaborative Ethnography

Collaboration strives to build research partnerships where all persons involved are given opportunity to voice their unique knowledges. Collaborative research can have a variety of names, including collaborative ethnography, community-based research, action research, participatory action research, or participatory community research. Anthropological approaches to research are often considered more culturally appropriate by incorporating such collaborative elements.

Ethnographic partnerships in Alaska illustrate the value of collaboration, Ellanna and Balluta (1992), Fienup-Riordan (1994), Mather and Morrow (1994), Kari and Fall (2003). There are compelling studies in Alaska where CBPR is an effective methodology Rivkin et al. (2013), Lewis (2009), (Lewis and Boyd 2011, 2012). Efforts at CE in Alaska, such as Robbin La Vine (2010) open up new possibilities for the “meaningful” role of research in Alaska Native communities. It is the diversity of voices that brings new knowledge and skills, although sometimes seemingly irreconcilable, that continues to bring vitality and shape the future of our discipline (Rabinow et al. 2008). As a graduate student, the very notion of “fieldwork” itself presents students with a research conundrum, as we must decipher voice, representation, power, privilege, equity, authority, agency, positionality and the impact of research before, during and
In her dissertation, Elizabeth Campbell (2011) helps us to understand that there are several ways of being an ethnographer and what she sees as being two distinct ethnographic anthropological imaginaries between Malinowskian and Boasian. Personally, my way of “being” an ethnographer is just taking form but my intent will be akin to Elizabeth Campbell’s (2011) Boasian imaginary where anthropology is used “as a way of knowing and being created in community rather than a method deployed to study community…rooted in activism and the production of understanding (Campbell 2011:109, 29). The collaborative process offers the potential for me to remain true to my ethics, morals, and educational philosophy. A collaborative ethnography is currently the best means I have encountered that anthropologically addresses the need for research built from the ground up with a collaborative effort which “from text to praxis, thus blurs the lines between academic and community discourse, between academic and applied anthropology, between theory and practice” (Lassiter 2005:153; see, eg, Stull and Shensul 1987).

Collaborative research tends to favor a qualitative approach because sharing the lives of a community exposes a researcher to cultural, physical, emotional, social, and ethical dilemmas that are completely unique. The intimacy experienced during ethnographic research distinguishes cultural anthropology from other fields that are often considered more quantitative such as sociology, political science, or economics. Representing human experiences does not easily lend themselves to strict calculations and controlled experiments and often it becomes inappropriate to quantify how people think and feel. According to Indigenous and non-Indigenous scholars’ collaboration is a holistic orientation to problem solving; shaping the project together questions
are framed differently, priorities are ranked differently, problems are defined differently, and people participate on different terms (Smith 2012).

The growth and specialization of anthropology as a discipline is reflected by the complexities that occur when attempting to adequately understand, problem-solve and represent humankind in an accurate and meaningful way. Gary Holthaus (2008:40) argues that to shift towards a sustainable future we must recognize that, “no one culture can provide us with a comprehensive, all seeing worldview”.

While anthropologists are a diverse bunch of people our departments are criticized for being attitudinal White in ownership and in decision-making (Brodkin et al. 2011). CE has emerged in the last decade and a half to fill the void that is created when we neglect to allow people to tell their story, their way (Lassiter 2005). Traditionally, there have been three basic components to ethnography 1) Fieldwork, 2) Participant Observation, and 3) Producing Texts. Luke Eric Lassiter explains that CE, “is both a theoretical and a methodological approach for doing and writing ethnography” (Lassiter 2005). Important to emphasize is Elizabeth Campbell’s argument that,

in the case of ethnography data are the lives, words, reflections, and actions of actual people and contemporary context…ethical concerns in research proceed from issues over how one treats research data, rather than how one works with research subjects. In this view, ethnographers appear to have higher ethical commitments to knowledge building than to the people upon whom that knowledge is built (Campbell 2011:86).

The intention is that when we collaborate we are less likely to speak for other people and therefore build partnerships oriented towards positive change. Hegemonic perspectives are countered when individuals and communities are given the opportunity to share representational opportunity and authority.

There have been changes in contemporary anthropology regarding conveying the experience of another culture and input from the culture on how their story is told (Lassiter
The complex, diverse nature of communities makes it a challenge for researchers to have the cultural competency to accurately give voice to research participants, especially when results are expected to be distilled through western scientific frameworks (Rivken et al. 2013). This illustrates the difficulty of integrating differing visions, agendas, and expectations into a singular text (Lassiter 2005) particularly when seemingly divergent knowledge systems and worldviews co-exist in the same community, albeit person (Barnhardt and Kawagley 2005).

When thinking about scientific research methods in anthropology, H. Russell Bernard reminds us of a few fundamental points, “the scientific method is barely 400 years old…Science is an objective, logical, systematic method of analysis of phenomena…Science isn’t perfect but it isn’t going away because it’s just too successful at doing what people everywhere want it to do” (Bernard 2006:6, 5, 17). One important point that Bernard fails to cover is the extent that western science is a socially constructed way of understanding the world. Kathleen Fine-Dare argues,

*Science as a way of knowing is central to the EuroAmerican tendency to view itself as the yardstick against which all other human experience can be measured, the yardstick that seems to support judgments about the value of one culture over another. Science promises an objective, measurable, verifiable “truth” that has tended to give societies that purport to have such truth a sense of superior knowledge (Fine-Dare 1998: xi).*

As researchers, we must continually be willing to identify and unpack our own cultural baggage. This means that unless we carry within us all cultural perspectives, we must enhance our understanding of knowledge pursuits. Acknowledging that science is not perfect and there are other ways of knowing is a first step towards instilling integrity into my research and writing.

*Renew Anthropology*

As a commercial salmon fisher, I have been a “subject” of a sociological dissertation project on Alaskan commercial salmon fishermen. I did not find this experience appealing, even with a bachelor’s degree at the time I felt ill equipped to answer certain ambiguous survey
questions. Taking time out of our lives to fill out a lengthy survey, helping researchers by using our time, boats and our gas to travel and in return I have yet so see or hear about any of the research results.

In some way, this has helped me to understand better Linda Tuhiwai Smith’s statement that the word “‘research,’ is probably one of the dirtiest words in the Indigenous world’s vocabulary” (Smith 2012:1). The following is an excerpt from my field notes, indicating the difficulties that I had navigating between fisher and researcher:

*I am extremely uncomfortable to be coming to visit as a researcher instead of myself. They offer the boys ice cream and offer me tea. Their oil stove is so warm, very soothing. I ask if I can record our conversation, I know the answer is no and I did not even want to ask the question. But I ask anyway, because I want to remember everything she says. She says no and her demeanor changes towards me. I know how invasive it feels to be recorded. So, I ask if its ok if I just take paper notes and she nods, yes. I hate this.* (Sarah Braund field notes 2015).

How do we respond when some scholars criticize that “anthropology as representative of all that is truly bad about research” (Smith 2012:11) or that “studies done on Indigenous people and culture by ‘outsiders’ have been a thorn in the side of Indigenous people for generations” (Wilson 2008:130)?

During my education in anthropology I have been instructed to engage with people using respect, ethics, morals, rapport, reciprocity, informed consent, cultural sensitivity and relativity, avoiding ethnocentrism. Ethics are defined as the discipline of dealing with what is good and bad with moral duty and obligation. Ethics could be considered a guiding philosophy that establishes moral principles of conduct. Ethics are particularly important in anthropology because the discipline has the possibility of directly affecting the lives of real peoples. The primary issue that surfaces among anthropologists in ethical debates is the potential negative impact that an anthropologist could have on an individual or community.
Anthropology is about understanding what it means to be a human being in an ever-changing world. Rather than focus and specialize in one area of anthropology I worked extremely hard to expose myself to a variety of classes from medical anthropology to historical archaeology. I wanted to enhance my education, akin to a multi-disciplinary approach, in hopes that it would encourage new learning, build a sense of depth and help me to connect knowledge webs. At the same time, in my case anyway, as a student I have crafted my research proposals in relative isolation and write in a way that is more accessible to the academy while at the same time knowing that this type of research process is culturally irrelevant for many communities (NCAI 2012). The manner in which we as scholars, researchers, and anthropologists approach community relationships, dialogue, or more specifically knowledge production varies significantly.

I am still hopeful of a renewed anthropology, one that has an audience beyond the academy (like the communities many anthropologists rely on). What I have learned and continue to reconcile is that change in our discipline is slow. Our audience has mainly been in the academy and we have done a poor job of getting any message to the public, other than the continued tales of the exotic. As more and more Indigenous and minority peoples gain power through educational processes we see the dynamics shifting as mainstream Western approaches to research are being called out for being inadequate or altogether inappropriate.
Chapter Five

Wild Salmon Peoples

Salmon are a keystone species at the top of the umbrella. We have direct access rights to a renewable publicly owned natural resource. Fish, we will fish until there is no more fish to catch. We are the harvesters and managers and it is up to us (Fisher Knowledge 2016).

Subsistence and TEK studies have been used in the assessment of potential changes that may occur because of a proposed development in CHM. If there is no baseline data then it is difficult to ascertain what is changing over time or measure how significant impacts might be. Nushagak is not just a commercial set net fisher community it is also a subsistence community (Figure 11 and 12). This chapter acknowledges that wild salmon carry multiple meanings.

Figure 11. King salmon tail. Photo by Randy Billmeier.

Chinook. King. Oncorhynchus tshawytscha

Figure 12. Filleting King for supper at Nushagak. Photo by Randy Billmeier.

Sockeye, Red, Oncorhynchus nerka
Coho, Silver, Oncorhynchus kisutch
Chum, Dog, Oncorhynchus keta
Pink, Humpy, Oncorhynchus gorbuscha
Our Way of Being

Salmon have been vital to the lives of coastal peoples around the world for millennia. We must start with the acknowledgement that were it not for the return of wild salmon and the sustainable relationships that have been nurtured by Indigenous peoples, there would be no commercial salmon fishery. It is widely acknowledged that Indigenous peoples’ subsistence — the production, harvesting, processing, use, and sharing of traditional wild food — is an integral part of cultural, spiritual, emotional, and physical well-being. According to Thomas F. Thornton (2001:87) “when asked to define or translate the term “subsistence” into their own language, Alaskan Natives invariably offer foundational and embracing definitions, such as “our way of living,” “our way of being,” “our culture.”” The Alaska Federation of Natives (AFN) describes subsistence as, “vital to the preservation of communities…integral to our worldview and among the strongest remaining ties to our ancient cultures, is as much spiritual and cultural, as it is physical” (AFN 2009).

Donald Callaway (2004) suggests that subsistence activities preserve and continually renew the reciprocal relationship with the landscape and form the foundation of Yup’ik culture. Ann Fienup Riordan (1990:47) describes a similar experience, when she tells of coastal Yup’ik subsistence:

Not only do goods cycle as do the seasons, but human and animal souls likewise are continually in motion. The birth of a baby is the rebirth of a member of its grandparental generation. The death of the seal means life to the village. The same people and the same seals have been on this earth from the beginning, continually cycling and recycling through life and death. Through this generational cycling, a life-celebrating system is put forward. The coastal Yup’ik Eskimos are not simply surviving on the resources of their environment but are living in a highly-structured relationship to them. This relationship is important to comprehend, not as an exercise in Eskimo esoterica, but as the key to why they act and feel the way they do.

Furthermore, Rachel Mason (2004) identifies that it is the shared activities between generations, such as berry picking and traveling to family fish camps that form intimate memories that shape
cultural identities and values. Mason argues that the continued opportunity to harvest and share wild foods is integral to cultural survival (Mason 2004).

One Yup’ik way of passing down IK is from Elder to child through storytelling as exemplified by Yup’ik John Active (2010) who retells how lessons learned from his grandmother’s stories taught him how to be a “genuine Yup’ik” and made him feel strongly that for Yup’ik people “our subsistence lifestyle IS our culture” (Active 2010:186). Researchers once believed that as subsistence users became more integrated into the cash economy there would be a decrease and eventually a departure from traditional subsistence pursuits (Wright et al. 1985; Wolf et al. 1984; Wolfe and Elanna 1983). In contrast, we see that in Alaska to varying degrees, Indigenous peoples are still active subsistence users and in many cases income is used to support subsistence lifestyles.

Trimble et al. (2008:21) illustrates that, “being part of an oral tradition is central to Native culture, while the same cannot always be said of a written-word-driven culture.” Fienup-Riordan’s (1995) work highlights the difficulties that an anthropologist encounter when trying to converge the rules and rituals of Yup’ik oral histories into a single written text. The Yup’ik view of the world is unique, within the area there are even regional variations, which challenges many western views of knowledge. Many of us are familiar with the anthropological debates that argued man the hunter and woman the gatherer however, it becomes uniquely an English discourse when we begin to consider that in the Yup’ik language “men talk of ‘gathering’ the geese. Conversely, women talk about ‘hunting’ eggs, berries, and greens” (Riordan 23:1995). Sacred stories, Indigenous legends, and relating experiences are all Indigenous ways of knowing, what Active (2010) and Wilson (2008) both describe is a process whereby the “Elder didn’t just
tell them the relationship…but took them to a place where they could discover that relationship for themselves” (Wilson 2008:118).

Prior to European contact, fish camps were subsistence camps. Per three-ounce cooked portion of wild King salmon has 11.3 grams of fat followed by wild red salmon at 5.7 grams (USDA 2017). As wild salmon swim upriver, they expend energy and burn off valuable fats, undergoing radical morphological changes as they reach their spawning beds. Knowing this, Indigenous peoples of Northern regions would typically travel to the mouths of rivers and establish seasonal fish camps in order harvest wild fatty salmon.

Archeological research in the Bristol Bay area is marginal (Shaw 1998). During the Holocene in Alaska, Mann et al. (1998) argues that geologic disturbances and changes in climate and sea level affected cultural change in the Gulf of Alaska. A climatic history derived from palynology, glacial geology, and dendrochronology indicates that throughout the Holocene fluctuations in temperature and precipitation coincided with oceanographic changes. Mann et al. (1998) interpret these data in combination with nitrogen isotope records from salmon spawning lakes in Kodiak to suggest that during the Little Ice Age (ca. AD 1350-1900) there were dramatic shifts in salmon abundance indicating that the fluctuations in temperature and a drastic rise in sea level adversely affected marine migrations and salmon abundance, thus impacting prehistoric subsistence success. Michael R. Yarborough and Linda Finn Yarborough (1998) argue the climatic fluctuations may have had detrimental impacts on food resources causing prehistoric North Pacific maritime people to move elsewhere.

James A. Fall is a well-known cultural anthropologist in Alaska who also served as the Statewide Research Director at the Division of Subsistence of the Alaska Department of Fish and Game. Fall conducted ethnographic research with Dena’ina elders beginning in 1978 and used
this research as well as published and unpublished written materials for his dissertation, *Patterns of Upper Inlet Tanaina Leadership*. The term Tanaina has since been replaced by the favored Dena’ina meaning “the people”.

Upper Inlet Dena’ina (UID) are presumed to arrive in Southwestern Alaska around AD 1100 (Reger and Pinney 1996). The settlement and subsistence patterns of the UID presented by Fall (1981) provide useful information on how location, environment and subsistence resources effect human disbursement and sociopolitical organization. According to Fall, prior to European contact the UID lived in permanent winter villages (qayeh) that were located within a permanent territory. A typical village would consist of four or five semi-subterranean log houses (nichil) that would accommodate several related nuclear family members. In the late fall, winter, and early spring activities revolved around the qayeh (Fall 1981).

The following is a condensed version of Fall’s (1981) description of UID settlement and subsistence practices. Subsequent factors were described for choosing winter villages beginning with the most important:

1) access to salmon or fresh water fish  
2) supply of wood for building, fuel, and for smoking and drying food (after the wood supply was exhausted villages were abandoned)  
3) fresh spring water for drinking, cooking, and fish preparation  
4) a high ground location such as a bluff for defensive protection  
5) proximity near major river and/or trails to easily access food caches (Fall 1981).

During the summer months, efforts were concentrated at smokehouses located near salmon streams or fish lakes. Smokehouses could be up to 50 feet in length and contained people as well as drying fish. All groups of UID relied heavily on salmon and would return to the same smokehouse year after year. At the same time efforts were also focused on harvesting beluga whales that follow the migrating salmon into the upper Inlet. Dry meat and food was stored in caches in the qayeh but also at summer camps and well established locations along trails for ease of transportation (Fall 1981).
There is a distinction between upriver and maritime Dena’ina, because of their differing locations they have access to different foods. Not only are the foods different but the foods that are the same are distinguished by different flavor. Clearly, depending on location, access to different resources illustrates the importance of trade networks. These trade networks were so established that there used to be beaten down paths between villages (Fall 1981).

The social organization of the UID revolved around the qeshqa ‘rich man’. Fall explains that, “the qeshqa organized his ukilaqa ‘his clan helpers’ into cooperative hunting and fish groups. In addition to this economic role, qeshqa instructed the young, settled disputes, and organized warriors for battles with the Ulchena (the Alutiiq)” (Fall 2003). The best description of the qeshqa is as the ‘overseer’ for it was their duty to collect and distribute food, a job that ultimately would determine the demise or the prosperity of the nichil (Fall 2003).

Intimately entwined with culture, language, identity, and self-determinism subsistence hunting, fishing, and gathering remains of central importance for many Indigenous and local peoples in Bristol Bay. Subsistence foods available and commonly used in the Bristol Bay area include, but are not limited to: all five species of salmon, non-salmon fish, moose, caribou, beluga, furbearers and small land mammals, waterfowl, upland birds, eggs, marine invertebrates, berries and wild plants. Ann Fienup-Riordan speaks of the resilience and adaptability of subsistence systems in her 1986 study on potential harvest disruption from projected oil and gas development near three Yup’ik communities on the Yukon-Kuskokwim Delta region of Alaska. Riordan’s comments are still salient today as we cannot know what the impacts of large-scale development will have on subsistence (1986:277):

As we have seen in the descriptions of both historical and contemporary harvest patterns, a harvest disruption, either small or large, was an almost annual occurrence. And, as has also been observed, various still functional social and cultural mechanisms are particularly well adapted to respond to these disruptions, e.g. sharing and trade networks, flexible kin groups, adoptive relationships, broad family spread, a mixed economy, reliance on a diversity of
resources, concepts of group membership and systems of land ownership. This practical
tility and economic diversification, however falls short of complete adaptability in that it
requires harvest of at least some minimum magnitude. Without the active harvest, exchange,
and consumption of at least some renewable resources, it is difficult to conceive how the
system would continue to be played out.

To date Fienup-Riordan’s “need for specific intra and inter community information in order to
allow for adequate and meaningful analysis of social, economic and cultural change” has yet to
occur (Fienup-Riordan 1986:7).

In 1978, Alaska Legislature passed its first subsistence law, the following are present day
state and federal definitions (Norris 2002):

Under Alaska State law “subsistence uses means the noncommercial, customary and traditional
uses of wild, renewable resources by a resident domiciled in a rural [sic] area of the state for direct
personal or family consumption as food, shelter, fuel, clothing, tools, or transportation, for the
making and selling of handicraft articles out of non-edible by-products of the fish and wildlife
resources taken for personal or family consumption, and for customary trade, barter, or sharing for
personal or family consumption” (AS 16.05.940[32]).

Under Federal law, “subsistence uses means the customary and traditional uses by rural Alaska
residents of wild renewable resources for direct personal or family consumption as food, shelter,
fuel, clothing, tools, or transportation; for the making and selling of handicraft articles out of non-
edible byproducts of fish and wildlife resources taken for personal or family consumption; for
barter, or sharing for personal or family consumption; and for customary trade” (ANILCA Title
VIII Section 803).

In 1992, in a review of the NPS management history of Alaskan subsistence, Frank Norris
remarked that “subsistence in Alaska today is still and emotional, highly-charged topic” (Norris
1992: viii). Such passion and emotions surrounding subsistence have not dissipated in 25 years.

**From Subsistence to ‘Resource’**

“I believe that for a space of twenty days from July 2nd to July 22nd, the Nushagak River, within
the distance of twenty miles, is the busiest place in Alaska, for within that distance and within
that time are caught, cleaned, and cooked and packed $2,200,000 worth of Alaska red salmon. I
will put the Nushagak, for a box of perfectos, for more fish and less sleep against any other place
in the world” Colonel Russell S. Bates, Alaska Prospector, September 3, 1903.
In 1868, the first salmon saltery opened in the territory that would become Alaska and a year later the first cannery. This marks a drastic departure from the thousands of years of salmon being utilized strictly for subsistence to its development as a commercial ‘resource’ (Clark et al. 2006). The Arctic Pack Company built a cannery at Nushagak in 1883 and produced 400 cases of salmon (Alaska Geographic 1978:35). Bristol Bay Fishers recall the abandoned canneries (Fisher Knowledge 2015):

*They started a cannery at Clarks Point, ever since I can remember there was a cannery there. Up the Queen [Queen Slough]. The Queen Cannery.*

*That was from the 1800s, yea.*

*Yea that was at Clarks Point or Ekuk or whatever, are they the same?*
No two separate canneries. Libby McNeil and Libby was Ekuk then Columbia Ward Packers was Clarks Point but they were closed real early and in the late 1950s Clarks shut down.

And then the Ball Brothers came in.

It was the beginning of attempting to control salmon as a natural resource for economic purposes, and by 1898 there were 59 salmon canneries operating in Alaska, 10 of which were in Bristol Bay (Figure 13). In the ethnography of the Nuvendatltin Quht’ana, the People of Nondalton, Linda J. Elanna describes (Ellana and Balluta 1992:16):

Salmon fishing provided a large portion of food for both humans and their dogs. At least in the 1900s, most of the domestic fishing effort was conducted by females, older children, and older males, since young and middle-aged men generally went to Bristol Bay to commercially fish. At summer fish camps, generally a common seine net was used by multiple, smaller, related family groups. Female members of such groups also jointly processed the abundant quantities of salmon taken during summer months…This was an important time for female and kin and their children to interact in the 1980s. Interestingly women’s set net commercial fishing sites at Bristol Bay and their composition followed similar principles of social and special organization. Additionally, women usually conveyed set net permits to daughters, while male commercial fishermen generally transferred permits to sons or sisters’ sons.

Narratives as Forms of Knowledge

Figure 14. Set Net skiffs delivering catch to Tender 2015. Photo by Randy Billmeier.
We are a living history. We will be gone someday. We represent humans’ ability to adapt to changing circumstances in the face of uncertainty. The last that is tied to knowing nature and environment through the work versus through recreation. This experience is a different state of consciousness and provides a unique perspective on the human condition. It informs future generations on how to adapt to the 6th great mass extinction (Fisher Knowledge 2016).

A narrative can be described as a story that recounts thoughts, feelings, and actions. Narrative is a fundamental human way of giving meaning to experience and offers a way of ordering experience and constructing reality. Anthropology has long tradition of studying oral stories and narratives. Narratives in an anthropological sense are important vehicles that people use to talk about themselves. Often it is through sharing stories that we begin to infer what it feels like to be in someone else’s world. Knowledge is generated and shared through narratives. As a female fisher to be able to share by personal experience is a step towards balance according to Jessica Senehi and David Samper:

When women’s personal-experience narratives are shared in a social context, individual experiences may come to represent a group’s shared experience, and in this way, it gains value. This process occurs in spaces where women’s voices are dominant (that is, no longer silenced) and where they are free to analyze their social situation. As personal stories begin to shape a group narrative, individual stories gain power. The personal becomes political. The new group narrative becomes a new framework for thought and a blueprint for action. (Senehi and Samper 2009:460).

Knowledge does not have a format, it is not automatic, it is not as apparent as many would like to suggest. Indigenous peoples often pass on knowledge through narratives and story (Weber-Pillwax 2004). This recognized pathway to knowledge acquisition has been occurring for generations.

FK is a living, fluid, dynamic body of knowledge. Mechanisms for hearing commercial salmon fisher voice often occurs as testimony at State of Alaska Board of Fish Meetings or North Pacific Fishery Management Council or lobbying Alaska Department of Fish & Game (ADF&G) and elected officials. In Board of Fish meetings for instance, fishers have three minutes to
establish expertise and credibility, and then state their positions as to whether they are testifying for/against a proposal. “To me being a fisherman is really about good stories and appreciating a dirty joke,” commented one fisher (Fisher Knowledge 2016).

This comment may have been said in passing, but fishers talk differently in a skiff when they are clipped onto a net surrounded by trusted crew or after offloading brailer bags of salmon onto the tender (Figure 14). When you are living out in the elements you often experience a different notion of space and time. One set netter believes that it is the silence that allows one to slow down enough which contributes to FK:

*If fishing has taught us anything it teaches us patience. You have to wait for the tide. Sometimes you just sit and wait and strain water for five hours. There are very few things in our modern lives that force us to slow down. That patience is what guides us* (Fisher Knowledge 2017).

We open up over mug up (a tradition of visiting over coffee and pastries). We come together, fishing permitting at 4th of July beach picnic to connect with one another and share food. We play cards and games. We laugh and cry, fight and wrestle on the beach, and threaten each other on the fishing grounds and then turn around and help each other out. We pop huge communal bowls of popcorn, sing songs and celebrate on music night. The songs we sing are written by fishers and inspired by wild salmon, we shout the lyrics each season to usher salmon into the Bay:

*Lively singing and stomping: Oh Ra Heave Ho this poundage aboard my Captain and my friends, the men push on straight through the night there’s salmon coming in, there’s salmon coming in!* (Fisher Knowledge 2015).

Set net heritage is in the music, the cabins, the smells, the birds, the smoke, the steam, the stories, the bugs, around a table, but this is only my version and there are endless incarnations.
Fishers are not likely to completely reveal themselves to outsiders or strangers. The ability to connect as a researcher takes common ground (see Figure 8). Building a relationship takes trust and consistency. So, to do intimate research within a community is to build a relationship. This can take a lifetime. As you build the relationship you build trust and over time credibility. In such relationships, a space opens up where you can talk about anything.

Commercial Fisher Debra Nielsen, describes how fishing forces one to test one’s self, to push beyond comfort zones and as a result growth and learning are created, then shared by story. Nielsen describes:

I would never say about fishing that it isn't worth it. It is worth it, even if you lose the person you love the most or your own life doing it. It’s a worthwhile endeavor because it’s everything you are. We never feel truly alive unless we do the things in our lives that take the measure of everything we are, the depth and breadth and width and height of us … there are very few enterprises in life where you meet those horizons on a daily level. You see them once in a while and it makes a story, but in fishing every day’s a story (Fields 1997:124).
Chapter Six

Nushagak Fish Camp

“You realize this beach has had all kinds of incarnations, you know. Sometimes you drive up [in a skiff] and think the glory days was when there was a village here or a cannery or something but these are the glory days. This is as good a community as this beach has ever enjoyed.” (Fisher Knowledge 2015).

Figure 15. Expanded view of Nushagak and set net fleet in the distance, 2015. Photo by Randy Billmeier.

The topography of Bristol Bay area of Southwest Alaska ranges from lowland coastal plains, to rolling hills, and tall mountain systems. The natural area hosts Lake Iliamna, the largest fresh water lake in Alaska, Tikchik State Park, the largest state park in the United States, the largest run of sockeye and chinook salmon in the world. The region is well known for all five species of salmon, its extensive system of lakes, rivers, streams, and endless number of sloughs. The river and lake systems are optimum habitat.

At the time of historic contact, according to nineteenth century observers, the Bristol Bay area was a territory of shared boundaries between the Aglegmuit, Kiatagmiut, and Togiagamiut, Aleut, and the Dena’ina peoples (VanStone 1967). During the historical period observers
consistently made a distinction between coastal groups and the groups whose territory was upriver. Beyond this distinction, the description of cultural traditions in the area is limited and often conflicting. Van Stone (1967:xxi) suggested that population shifts and a constant immigration of peoples from other areas from historic times up to present day made it difficult for observers to accurately describe or identify cultural affiliation.

Figure 16. Bristol Bay Map (Map Source: Troll 2011)

Located on the northeastern shore of Bristol Bay, across from Dillingham, is the contemporary seasonal fish camp of Nushagak, Alaska (Figure 16). Nushagak was originally established by the Russian American Company as Aleksandrovski Redoubt, a trading post in 1818 and it is during this time that the first well-documented contact between Indigenous Yup’ik
speaking peoples of Southwestern Alaska and Europeans occurred (Vanstone 1972:6).

According to VanStone (1971:21), Aleksandrovski Redoubt was “responsible for opening the interior regions of southwestern Alaska to the fur trade.” The Yup’ik name for Nushagak is *Tahlekuk* meaning elbow. It is unknown if the Nushagak site was occupied prior to Euroamerican contact. The prominent high bluff, availability of drinking water, excellent fishing, and frequent beluga whales seen on the shoreline make it a good location for subsistence activity.

In 1832, the first Russian Orthodox chapel built in southwestern Alaska, as well as a church dedicated to Apostles Peter and Paul was constructed in 1845 (Branson 2012). A large white Russian Orthodox cross was erected sometime in the early 2000 in commemoration of the site of the Church of the Apostles Peter and Paul but fell after the 2015 salmon season. Adjacent to this location is a cemetery. In 1849, the earliest census records indicate that 74 men and 94 women resided in what was most likely the largest village in Bristol Bay at the time. One of the first English speaking Euroamerican’s to permanently live in Alaska was John W. Clark who arrived at Nushagak in 1879 (Branson 2012). Fishers at Nushagak recall (Fisher Knowledge 2015):

*But when you came didn’t you tell me that Clark’s old building was still here, that AC store?*

*There was a trading post just this side of the tin cabin. It was Clarks trading post. People would come all over from the villages.*

*Was that down on the level here?*

*It was right up against the hill. It was yellow I remember. And then there was a road. Basically, a road, there weren’t any vehicles but there was a nice wide road you could walk up the hill to where all the houses were where the Natives lived up on the hill*

*How long did the trading post operate? Did it operate still when you got here?*
No, it was abandoned it was part of the Clark empire and when the cannery was here and all that.

Figure 17. A Libby, McNeill & Libby Company postcard showing their cannery, right, at Nushagak village, and the Abner Coburn, a 225 feet long wooden fully rigged sailing ship that supplied five Libby canneries in Bristol Bay at Libbyville, Graveyard Koggiung, Lockanok, Ekuk, and Nushagak, beginning about 1913-1916. Nushagak village was the first Russian outpost in the Bristol Bay country. The postcard was based on a photograph taken by the noted photographer John Thwaites, who traveled to Bristol Bay as a mail clerk on the Dora during the first decade of the 20th century. The Abner Coburn was built in Bath, Maine by William Rogers in 1882 and was involved in the Orient trade. It was acquired by Libby’s in 1912 and was burned in Puget Sound to salvage its metal parts about 1929. (Burwell e-mail: April 2006) (Image Source: Branson 2009)

The importance of Aleksandrovski Redoubt is further evidenced by the construction of a new European-style Russian Orthodox Church to replace the first Russian Orthodox Church and a post office in 1899. That same year, as shown in Figure 17, Pacific Steam Whaling Company was built in front of the settlement and the Alaska Fisherman’s Packing Company both canneries enduring under various ownership continuously for over 30 years (Van Stone 1972; Branson 2015). “In the beginning, most of the fishing was done by Euro-Americans while the cannery
work force was provided by imported Chinese laborers. Large numbers of Eskimos (Yup’ik) were attracted to Nushagak Bay during the fishing seasons, however, and gradually some were able to obtain employment in the canneries in spite of considerable prejudice against them and their abilities as workers” (VanStone 1971:22).

**Sailboat Days**

Every September after returning from salmon fishing in Bristol Bay I take my two young sons to build a small wooden sail boat model at the annual Kachemak Bay Wooden Boat Festival in Homer, Alaska. This gives the boys the opportunity to use hammer, nails, hand drill and saws while I assist and hope they do not cut off a finger. This year the day was sunny and calm and as I gazed out over Kachemak Bay and spotted what I thought looked like a Bristol Bay double-ender sailing peacefully just off shore (Figure 18). The boat festival coordinator announced that if anybody wanted to ride in the Bristol Bay double-ender that Captain Dave was ready for people to come aboard.
What are the chances that not only I happen to be in the right place at the right time to have this opportunity but I also get to take my boys sailing on the quintessential commercial fishing salmon boat of Bristol Bay early days? Of the 1,200 Bristol Bay double-enders that once sailed for salmon as shown in Figure 19, only three are known to remain that are museum quality. Libby No. 23 is a double-ender that was added to the NRHP in 2013 indicating the significance to Alaska’s history. Our family has stood on the double-ender that is on display outside of the Peter Pan Cannery in Dillingham that rests in the parking lot which paled in comparison to being on the water with the wind in the sail. No noise from an outboard, no smell of exhaust, no vhf chatter, just the sound of the sail and sea.

Commercial salmon fishing began in Bristol Bay, Alaska in 1884, often revered as the “sail boat days.” Two man crews sailed the winds for salmon in 29-foot double-ended sailing gillnetters, 24 hours a day, six days a week through wind, rain, and storm with Sunday off. According to one fisher, during this time being a set netter was considered a luxury:

...see people couldn’t really get permits either because only Alaska residents could set net. And all the drifters in sailboats were really wanting to set net because being a drifter was a horrible job because it was sailboat only. People drowned every year and you had to fight the wind. So, it was a privileged thing to be a set netter. But then the law changed and they of course let motors in and the year for that was 1951 I think, so drifting then became desirable. And then eventually they changed the law so that anybody could get a set net permit when they put permits in (Fisher Knowledge 2015).

The ban on power boats was lifted in 1951 with mixed emotions but a 32-foot boat length limit remained. One fisher spoke of drift netting in a retrofitted sailboat:

I was born in Bristol Bay, since I was a baby I have lived here. Set netting and drift netting. My whole family are fishers, set netters and drift netters, my older sisters and brothers. We spent September to April in Koliganek and May to end of August we would be at fish camp. We would never go to town. The first time I went to town was when I was 6 or 7. We fished in a wooden banana boat with an
engine. We fished down the beach where the spring water flows from the pipe (Fisher Knowledge 2015).

For commercial fishers of the sailboat days this marked the end of an era of grit and endurance, of intimately knowing the wind, water, tide, and shorelines to not only have a successful season but to stay alive.

![Figure 20. Set Net skiffs anchored out prepared for commercial salmon opener, Nushagak, AK. Photo by Randy Billmeyer](image)

**Wild Commercial Salmon Set Netters**

As a fleet, the commercial salmon set (Figure 20) and drift net fishers in Bristol Bay typically supply half of the world’s wild sockeye salmon (CFBB 2015). The value of salmon for many peoples is not measured as a resource but often revered as a way of life, with deep cultural and even spiritual roots (USCOP 2004). Today, the wild salmon run in Alaska is managed by the ADF&G to allow optimum escapement while the bulk of the surplus is harvested by commercial fishers. Alaska has been called the last stronghold for wild salmon, and the, “Bristol Bay salmon fishery is one of the most important commercial salmon fisheries in the world” (Clark et al.)
2006:95). Changing ocean and environmental conditions, proposed large-scale industrial
development, and social and economic circumstances in which fisheries are conducted threaten
the resilience of salmon and therefore the commercial salmon fisher.

Commercial fishing communities in Alaska are small and interwoven, in such
communities nearly everyone has an experience with fishing and a story of what it means to
them. Great care must be taken to ensure that the knowledge that is gathered, if shared, is done in
such a way as to not cause harm to fishers. There can be no promise of anonymity in such places.
FK is guarded knowledge, by this I mean commercial fishing is a competitive industry and some
people hold knowledge that gives them an edge over other fishers. Knowing this, I purposefully
approached with great care in order not to share knowledge that could put any fishers at risk.

Commercial salmon fishing has different meanings for different peoples. Fishers who
travel to summertime fish camps in Alaska gain a unique geo-spatial seasonal exposure to
terrestrial and marine ecosystems. Fish camp is then an evolving cultural landscape and
seascape, with a heritage, a tradition, where relationships between people, seawater, fish, beach,
mudflats, and tundra converge.

As was common in early historic times, some Alaska residents and non-residents travel to
summer subsistence “fish camps” to harvest seasonal resources and participate in the commercial
salmon fishery. Today, fish camps in the Bristol Bay region are predominantly organized around
the commercial salmon fishing season. In the summer of 1989 at Nushagak Point, 12 out of a
total of 49 households were occupied by residents from the Nushagak watershed (Seitz 1990:50).
Today, of those 12 households only one family from the Nushagak watershed remains, other
fishers travel to the seasonal community from Alaska and the lower 48 states. In 2007, the
Nushagak fishing community consisted of 98 adults and 15 minors (Kelty and Kelty 2010).
Set netting sounds simple, get into your boat and drive to your site that is leased from the State of Alaska. Set one anchor on the shore and one in the ocean, and try to keep your 50 fathoms perpendicular. Keep the net fishing in the water by bumping the net and anchors out as the tide drops. Keep the net clean of salmon, flounders, and snags by lifting the net over the bow and rolling underneath (Figure 21). Pick up the entire net and reset it at high water and repeat.

There are many fish camps located throughout Bristol Bay, all unique. At Ekuk, a fish camp nearby Nushagak, set netters fish with a mixture of boats and old pick-up trucks, utilizing trucks to pull up nets onto the beach and haul fish to the processor. At Igushik a fish camp across the Bay from Ekuk, many set net out of Lund boats and when rough weather blows in, since the Lund is a smaller and lighter boat, it easily be hauled out onto trailers pulled by four wheelers. At Nushagak, we affectionately call ourselves ‘mud fishermen.’ The Bristol Bay mudflats are legendary, “the mud of the Bay, a blue-gray gluey mess that swallows up hip boots, is a thing no beach fisherman will ever forget…” (Carter 1978). At Nushagak to get to your boat you must mud walk or a more recent option is the Argo, and amphibious all-terrain vehicle that leaves a trail of rutted tracks in the mud (Figure 22).
To fish legally a crew member purchases a crewman’s license which are currently $277 for non-residents. To become a permit holder, you must purchase a limited entry permit. Permits fluctuate in value but the most recent for set net is $36,100 while drift permits run $131,100. In the Bristol Bay District in 2016, there were 632 non-residents and 339 residents set net permits fished. The highest I have seen them sell for is $48,000 and the lowest was $12,000. There are several reasons that permits come up for sale, financial, sickness, death, and in my father’s case, a divorce. My step-mother conceded and gifted the Limited Entry permit to me, and my summer fishing in Bristol Bay was sealed.

Born into a fishing family, joining the commercial fishing minority was easy for me. For weeks, months, or even an entire year, fishers leave behind life as many know it, trading normal clothes for Extra Tuffs, chest waders with over-sized sneakers and rain gear, and braving extreme conditions to be employed in one of the most dangerous professions in the world. Why choose to work in a male-dominated, ultra-competitive industry fraught with danger and
discrimination? Commercial salmon fishing offers a level of autonomy not easily found in any other profession.

In 1979 and 1980 Marc L. Miller and Jeffrey C. Johnson conducted ethnographic fieldwork within the Bristol Bay salmon fishery, focusing primarily on social relationships and occupational motivation of fishermen. Miller and Johnson (1981) concluded that the primary motivation for fishing on Bristol Bay was economic gain. Commercial fishing in Bristol Bay is no longer the “economic phenomenon” that it was in the 1980s, the sockeye salmon return each summer but often, low price per pound and inflation, many fishers experience financial insecurity. The marginalization of the fishery is not a result of over-fishing but is impacted by global forces that reach far beyond the waters of Bristol Bay.

Farmed salmon was a new trend that was reshaping the fishery in the 1990s. During this time the Dragnet Processing Plant, situated across Bristol Bay from Nushagak near the mouth of the Wood River, posted a wholesale price of $1.00 per pound for red sockeye salmon. For more than 20 years, Dragnet established an intimate relationship with fishers, catering to their needs and instilling a sense of mutual respect and trust. At the end of the 1998 fishing season, Dragnet closed its doors for the last time, marking the end of an era.

Cherrier Fisheries assumed control of the facility in 1999, posting a wholesale price of $0.80 cents per pound for red sockeye salmon. The Cherrier Fisheries Plant subsequently filed chapter seven bankruptcy, leaving many fishermen grasping only a partial paycheck. When King Fisher Fisheries took over the plant in 2000, many fishermen were skeptical and leery to sell their fish to the new company. King Fisher Fisheries assured in writing, that they would not suffer the same fate as previous companies, because they were cushioned with 12.9 million dollars from investors and could survive precarious circumstances.
With a posted wholesale price of $0.65 cents per pound for red sockeye salmon, King Fisher Fisheries indeed filed chapter seven bankruptcy, and in a hasty attempt to escape the wrath of angry fisherman, abandoned the processing plant. To date, King Fisher Fisheries owe fishermen $1.3 million and a total of $3.1 million to fishermen, tenders, local merchants of Dillingham, Alaska and countless others associated with the company.

Today, we see that although farmed fish do impact wild prices, consumers are more aware of wild salmon versus farmed salmon. One fisher comments that, “the farmed fish aren’t the competition they were because they are $9.99 in Costco in California. Farmed used to be 4.99, but it has come up so they are on par now” (Fisher Knowledge 2015). However, prices per pound of salmon are consistently low and highly variable. Fishers have had to adapt and persevere despite adverse conditions – not just wind, and sea, and tides, but markets controlled by forces beyond their influence.

**Historic Nushagak Fish Camp Conversations**

On several occasions while set netting in Bristol Bay, I have caught a large king salmon that was laying, very much alive, in what we call the “basket” of the net. I believe the king salmon knows if it holds very still it can conserve energy and escape before it is pulled into the boat. Rather than bring it aboard, I often place the live king back into the water and watch it swim away.

I love all salmon but we usually start our season with a traditional fresh king salmon crew dinner. When you harvest a king salmon it does not make it up river, it becomes something else, our dinner or your dinner. This is how I also conceptualize FK. The stories are the salmon and the audience is cradled in the basket of the net. Fishers catch and share the stories. If researchers capture a story and write it down it “kills” it. The writing of the story is not the same as the
telling and hearing of a story and the knowledge that you personally gain as an individual is unique. To have context stories need to be in real time otherwise we lose the relational connective conduit. When stories are separated from the storytellers, context is lost as soon as it is reported. If you do not capture the story, it stays alive, which allows it to change as necessary. The knowledge from such story is more honest, realistic, it must be able to change and transition.

Where then does FK lie? If one conducts research too formally, it is inaccurate, it influences the way people speak, it changes what they say, colloquial language is not valued or considered knowledge. Official and formal language from outsiders that have no connection or relationship to the community impacts the openness of conversation. Oral traditions change depending on such formalities.

Wild salmon must swim upriver for survival, some make it on this arduous journey to spawn, others do not. We as fishers need both, the salmon that make it upriver and the captured fish too, this cycle sustains a rich heritage. It is the same for the stories. There are many stories that I, as an ethnographer let swim up river because they are “our stories” but I captured a few. I recorded one version of the formation of Nushagak, just enough to show that fish camp carries meaning and significance to me as a fisher, to me as an ethnographer, but more importantly by the community with which it is associated.

Fish camps have one thing in common – wild salmon. Ann Garibaldi and Nancy Turner (2004) suggest an alternative approach that researchers could take to assess the effects of environmental disturbance or stress that could be caused by the developments such as Pebble mine through the recognition and focus on cultural keystone species. The Pebble mine deposit straddles the drainage divide that impacts the watersheds that provides habitat for numerous animal species, including 35 fishes, more than 190 birds, and more than 40 terrestrial mammals.
(EPA 2012). While all life in the region carries import, the five species of wild Pacific salmon meet the specific criteria of being a cultural keystone species. Garibaldi and Turner (2004) describe how some species have more direct relevance and recognition in peoples' life ways and have developed a primary, overriding importance. These significant species play a unique role in shaping and characterizing the identity of the people who rely on them.

Figure 23. Nushagak Fish Camp circa 2015. Photo by Randy Billmeier.

Figure 24. H-1424 A circa 1910 John Thwaites photograph of Nushagak village surrounded by two canneries. The Northwestern Fisheries Company is on the left and the Alaska Fisherman’s Packing Company (Libby’s after 1913) is on the right. The house and store of Alaska Commercial Company agent, John W. Clark, are in the center between the two canneries. The Russian Orthodox Church and cemetery are seen on the higher terrace above the village. The cannery on the left was first built by Pacific Steam Whaling Company in 1899, it was then sold to Pacific Packing and Navigation Company in 1901. It was again sold to Northwestern Fisheries in 1904 and ran until 1932, when it was sold to Pacific American Fisheries in 1933 and ceased to operate. The cannery on the right was built in 1903 by the Alaska Fisherman’s Packing Company and sold to Libby, McNeil & Libby in 1913. The cannery burned in 1915 and was rebuilt in 1916. It operated until 1936 when mud flats built up and blocked the dock. (MacDonald 1951: 58-59). (Image Source: Branson 2009)
Every year in early June commercial fishers begin to make their way to the seasonal Bristol Bay community of Nushagak to partake in the harvest of the largest return of wild salmon in the world. Colorful cabins are nestled above the tide line where tall grasses converge with beach. Each year the beach is visibly changing, eroding so that remnants of the past are coming to the surface. Cannery pilings that were once buried under the sand and mud are now exposed and growing taller, giant spools of rusted cables and dinosaur sized machinery, red bricks, thick glass bottles, Chinese pottery with blue symbols, dining china and broken glass, give us glimpses of a nearly inconceivable historical infrastructure. Standing on the beach today and looking across at Dillingham it is difficult to conceive that Nushagak once served as the commercial and spiritual nexus of the Bristol Bay region (Branson 2012).

Ok, well 1951 is when I first saw Nushagak. My step grandfather had been one of the earliest set netters here in the 1930s...came up here to escape the depression from Washington. His first wife was a Moody, Alice Moody. Mother of the Wren boys and the Moody boys. The Moody’s family were big pioneers of Alegnagik see and in the summer people would come out fishing. He had relatives at Alegnagik so they helped him come up here and get settled and back then only Alaska residents could set net so it was a prime thing if you live here long enough, for a few months and then be able to start set netting in the 30’s. So, he and his children so to speak, he was raising Clarence Wren and Kenneth Wren. They all came over here and began set netting about the same time, the boys were real young then. He started in the 30s and when his first wife died, he met my grandma in the 50s and brought us here.

In 1951, the only people fishing here were my Step-Grandfather and Clarence Wren. Orville Braswell was living in the Braswell house over there with another fellar named Chris, a big Swedish guy and they were the watchman for the cannery that was still sitting here. That cannery was bigger than Peter Pan and it was sitting right where we are sitting now actually. This cabin is built on some of the pilings of that cannery. Braswell fished here, Clarence Wren and my grandfather, three sites. And then a guy named Fred King a reported (felon), running away from murder in Nome where he was a gold miner in the late 1800s-1900s also brought his Eskimo wife here and lived in a tent and fished. Those were the four that were fishing here, that was it.
There were no cabins! We lived on a barge that had a cabin on it anchored out. Sometimes we would have it anchored right here by the slough on the gravel. So, Braswell, Us, Fred King, a reported murderer, and Clarence Wren, four people. Clarence would bring his children over. They were young and he’d just pitch a tent inside this giant cannery and keep a couple tents inside just to be protected from mosquitoes. That’s where he worked out of.

It was simple because our net was on the marker line and it was a huge channel and they used to bring sailboats right in and dock out here. Just one hundred feet from here, ocean going sailboats! But the channel went straight down and we never moved our set net we had one end up on the gravel and a big ole anchor out on the other end and the outer ten fathoms on the lowest tide never went dry. A big ole river of slough was running right through here. So, we never had to walk in the mud. That’s how I started (Fisher Knowledge 2015).

**The Oldest Buildings**

When I was five years old I used play on the cannery docks, played up on the hill in the old school, played in the retorts. Bradford’s lived up on hill. They used to live here year-round died around 1961 or 62. We had a late run once, like this one year. I remember lots of boats up on hill (Fisher Knowledge 2015)

There was a white school house right up on the point of the hill up here. And my distant Aunt Josie Waski taught school there, she was teaching full time school there I think. There were probably 10-12 families living in houses when I came up on the hill. The Waski woman that taught school here, her husband was Frank Waski, he was a personal friend of Theodore Roosevelt. And he was the first delegate because Alaska was a territory, they couldn’t have a Senator so he was the Senator basically from Alaska to Washington D.C. (Fisher Knowledge 2015)

The A frame is the oldest cabin.

And the Tin cabin (Figure 25)?

Well that was here forever (Figure 25). But then our A-frame was the first.
What happened to the other buildings, the schoolhouse, the church, houses on the hill?

Some of them disintegrated, some of them were torn down. And then maybe one or two were left to burn but they were mostly gone before Skin accidentally set the fire. I think there was one maybe two left when that fire happened.

That was 1984. I came in May of 1984 and the church was still there. When I came in June of 1984 the church was gone.

I went up to church one day when they had church up there.
What year was the new church built? This church (Figure 27)?

Early 1980s.

What was the name of it though? No, it’s on the bench there.

It was just a group. Just Nushagak Church.

Oh, I just took a picture. Nushagak Chapel. Maybe something like that on the bench (Figure 28).
And it was always a church gathering place, I know when we came it was just a church.

Yea, we probably got 50-60 people in there easy.

Well we had meetings in there. The strike years and stuff in 1991. Always good music in there on Saturdays. Then we had a basketball hoop on it for a while remember that?

**Slough Changing**

![Image](image_url)

*Figure 29. Bristol Bay Mudflats and Shrinking Channel. Photo by Randy Billmeier.*

When we were kids on the beach we ran all over in the mud, and up the hill. I don’t remember there being any bears. I used to love to play in the mud. We used to find glass balls on this beach when I was young, big ones and small ones! Every year we would look for balls. We used to have a creek. And now I notice the beach is getting lower. The beach is wearing off (Fisher Interview 2015).

When this channel was deeper here. When we would get big storms, in come the swell and big waves coming in off the bay 15 to 20 feet I mean it was really bad in here. Because all this wasn’t out here kind of protecting and letting stuff brake on it. I mean it was just a big channel. It began to fill in early on probably 58/59 and through the 60s and early 70s we could still come up the slough here with our boats and we only had maybe a 100 foot walk from the mud. And it started getting more and more [mud].

Well in 1984 when I came we could still get the skiffs right out in front we could shove em in and we’d be down there in plenty of time. Didn’t have to do this [huge mud walk] and every year it got worse and worse.
And there was a giant sailboat that sunk right there. I mean it was the things were that big around on it. A huge sailboat. The mast you couldn’t reach around it. Its buried out there, we used to go out and take boards off it and stuff. The hull was turned upside down right in the creek and the creek would go around it. The kids used to sit out there with dip nets and dip net fish off that hull. It to have been 50 to 60, 70 feet. I never knew whose boat it was or when it went down or sunk there.

One time it looked like it was going to cut it towards my house, where I live now. But the first time I ever seen the place where I live we were out here fishing and it was a big storm and it was blowing so hard this was all flooded. This would all flood, wouldn’t it?

It flooded that year and I came up and I drove behind that house up there and tied up threw my anchor out behind that house and that’s where we cleaned our nets [take salmon out] and then the tide started going out and we drove around the house and came back out here

I thought to myself who in the hell would ever live here. SURPRISE [He purchases land and digs mud out of cabin]. See they used to be all in line there [cabins]. The grey cabin they were all in the same line because they were all on the same deal from the cannery.

Ours got knocked off the pilings!

The original one is where it has been from day one is the grey cabin.

Was the marker in the same place then?

No, it is down where our second site is now but it crumbled one May or April. Fish and Game had to replace and said it needed to be lined up more direct with that one so they brought it up one more site. So, we weren’t here but Braswell, the watchman, was and he saw them move it up so he came and jumped on that top site so he became the top site and we were second. So, a lot of years it was just four or five set nets.

Early Set Net Skiffs and Motors

Before the Seymour’s we had what they called Clarks Point skiffs. The Seymour’s they were plywood. They were pretty nice but they didn’t leak that much. From the 30s and 40s the skiffs we used were planks. They had planks like 6 inches or 8 inch ribs and then every year you would have to turn the things over because they would dry out in the winter, caulk them with caulking cotton. On that old plank skiff, we didn’t have the 50 Merc, the most powerful motor, all we had was a 9 ½ or 10 horse Johnson. And you started it with a pull rope and you’d have to wind it around each time. And it had it choke on it and if you wanted to back up it didn’t have reverse. You took the whole motor and turned it around and it pulled you backwards. And they were really unreliable and cranky you know so it was a HUGE deal when Clarence Wren got the first 25 horse
power motor. An Evinrude! And the only motors then were Johnson’s and Evinrude’s. There was no such thing as Yamaha. Mr. Yamaha wasn’t even born I think or Mr. Honda. So, Johnson or Evinrude and you’d have to really fight ‘em. They were slow and just don’t even think about getting on the step. It never happened. Nobody knew what the step was. Ten miles an hour was a huge top speed.

The only motors that we had that were outboards were 50 Mercs [Mercury] and there used to be a pile of them over here. I bet there was 20 of them. Remember that?

I remember that pile. Everybody had a 50 Merc.

Everybody’s anchors were a...a bruce anchor was unheard of. Some of them used the old halibut anchors. Some people had them around. Nobody fished a 50 [fathom net] together. We fished 25s and instead of rolling your net you just picked your net up and put it in the boat. And then you’d lay out the other 25 and pick it up. And run two sites like that. But mostly when I fished here that’s all we did, we didn’t even roll our nets. Then all of sudden people started making the aluminum rollers, remember. Still got some of those.

I still use two of them [laughing by all]. Probably not this year [he is retiring from fishing]. I did last year!

What was the last year you fished your wooden boat?

Last year. The final hold out.

Bush planes and Dillingham Airport

Figure 30. Airplane Nushagak Beach. Photo by Sarah Braund.
My grandfather had the first ever Caterpillar in Bristol Bay, a D6 Cat which he built the Dillingham runway with. Planes before that couldn’t land in Dillingham unless they came in on floats or skis in the winter. They moved the abandoned canneries from Nushagak and built some hangars over in Dillingham out of the wood and stuff. That was probably torn down about 1957 or 58. He built the runway [in Dillingham] and then we barged the Cat up the river and unloaded in what’s called the tripod and then he built a road with the Cat up the mountain and it was a big deal.

I have a story. You know he flew all over. He flew to Anchorage and when he got to Anchorage he didn’t know how to drive a car. Am I true or not?

Well I grew up in Alegnagik, see and there were no roads. They had cars in Dillingham but I lived in Alegnagik. No roads, no driving.

You used to have your Maule [airplane] parked here. There were three or four planes in a row here at one time.

Yep right in a row there [next to Red cabin].

When did you stop flying?

Well when the fish hit .45 cents a pound. [Laughter] It costs $1,000 in gas to fly the plane from California to here, each way. On a good day, I have flown from Seattle to Anchorage on a single engine plane up the coast in like 10 hours. If the weather is bad on the coast, you have to follow the Alaska highway up to Whitehorse. I have flown Alaska to the lower 48, 20 times.

The best altitude for fuel burning is about 7000 feet. On a beautiful day, it is too tempting to stay up there, it is such an incredible trip from Seattle to Anchorage following the coast. Up the Inside Passage. And you get to Juneau and go out around the bend; you go out around the bend in the open ocean and you got 2 or 300 miles of sand beaches up to Cordova, Yakutat, incredible. Glaciers coming down into the ocean, spilling out into the ocean. Brown bears, I saw 20 brown bears on one flight.

Decline and Return of the Run

The runs started just really going down in the ‘50s. Really the decline started in about 1946. Because the Japanese and Russians were starting to fish off shore just 12 miles out. Big 20-mile long nets just sucked up all our fish. We’d get all kinds of fish in our nets with Japanese net markings on them because they used small mesh nets that we couldn’t use. They were more efficient and deadly with their 20-mile long small mesh nets so that’s ‘46, ‘50, then it just started going down.
There wasn’t a build up of set netters because the runs were down and eventually Fish and Game said we are not opening the Nushagak District, there is not enough fish. It got that bad!

So, when Magnusson Stevens bill passed about 1970 something they pushed the Japanese and Russians offshore 200 miles finally giving us our fish back and so then whenever it was late 60s, early 70s, finally the runs started coming back once they got that bill through.

And then they put the permit system [Limited Entry] in and people could buy permits and come set net even if you weren’t a resident. So that’s when it really kind of started. When I came back after the lull about ’72 there was no cabins here at all. Except the old tin Benedetti [cabin] that was there for years. And we lived right behind here in this tent, 50 feet behind the house. I flew in in a super cub and brought the wife and two kids and we lived in that the first summer because there were absolutely no cabins. Just Braswell’s house and the tin house, that was it.

But then the fish started coming back and word got out you could make money set netting and I always wanted to help kids that were going through college and so I’d hire college kids when I could so they would use the money to go to school. I think of, my two kids were too little to fish and the first year or two just me and my wife and I fished together. We brought in the first aluminum boat to set net in, a flat scow. Two of them just alike. And then my wife and I fished that one year we did 150,000 pounds of humpies. Nobody else was here to fish em and you could walk on them across the slough it was crazy.

We could see that fishing was picking up so we had to hire some crew. One of the first crew I hired was a college kid that I met in Anchorage at church and he was a really nice guy and he could work. He was from North Dakota or South Dakota, he worked really hard and then he said hey I got this brother I’d bet he would like to come, he is kind of an outgoing guy. And the next year he came.

I notice that when increased set netters and increased permits fishermen seem greedier and fight more. We all used to take turns in line, everyone would get a chance drifting. There was good consideration and people were helpful. There is always lots of fish. A few years’ fish were not so good in the 80s and 90s. Nobody in those days worried about how much fish. Nowadays everyone’s worried about catch. Bills, expenses. All fisherman used to fish all the way till the end. You don’t quit until the cannery closes. People quit early now.

**Processors and Cash Buyers**

The Queen Fisheries, they were the ones from the early days, but after that cash buyers started coming in. It was called the Queen fishery tally scow, they had a
bin for fish on it and a guy living on there and they anchored it out there and we would throw the fish on with pews and he would count them and they would come and tow it to the cannery or unload on to it and then there was a big storm one year that blew it onto the grass.

Queen Fisheries used to have a tug boat/open barge, pew fish, count fish. A tally man with a counter. Click, click, click. Lots of work. And we would cover fish with a wet gunny sack. There were big tenders deliver to, The Murr. At Queens cannery they used to have breakfast, lunch and dinner. Free meals to help out the fisherman. They would really take care of the fisherman. We would fish all week and on weekends and we would work in the cannery. No closures. M-F and then work the weekend at cannery. I don’t remember seeing any Fish and Game.

The first cash buyer I remember, coming in here and paid cash for fish and bought fish was Kemp and then All Alaska came in later on after that. But Dragnet never bought any fish off of this beach because they bought all the fish at Igushik. And that’s how I got selling to them because...Remember Od he was an old Norwegian named Od anyway they had one tender boat that would go and pick up all the fish at Igushik and bring ‘em back and he would come by Coffee Point on his way to Igushik and he’d pick up my fish and that’s how I got selling to Dragnet. And then Dragnet sold out later on to Cherrier. But he kept the name Dragnet. That’s the only one I knew was Jay Cherrier. Cherrier started coming here then Cherrier met with me because I had sold them fish, I was really the only person that had sold them fish. Because all the rest of the fisherman was Igushik. They always bought their fish at Igushik and they wanted to start here [Nushagak] and they were going to lease the Jacky M from Moody’s up there. And so that was one of their plans to come here and try to buy some fish on the combine and buy fish because All Alaska was in here at that time. Well after that then Kemp was here they didn’t last for very long and then All Alaska came in here, then All Alaska got into trouble member? Well their broke they went under. Well then Peter Pan sent a tender in here to start buying some fish. And that was the Namorada. That was the first fish that he ever bought.

Before that were they [Peter Pan] just drift buyers?

Yea they just had a drift fishery they didn’t buy no set net fish at the beach at that time. Then they started buying set net fish member. And then there was a dilemma on the beach...are you going to sell to Peter Pan or are you going to sell to Dragnet. Who you going to sell to and it went down like that and then Dragnet went under.
The Fisher, the Fisher Brothers. Jay Cherrier died and then his partner died and his partner’s wife tried to take over and the son tried to get involved and it went under.

And then Norm was with Peter Pan and then Norm went with SnoPac. You know that Norm kept talking to me so we would all go with SnoPac and not Peter Pan, because that was a thing, well then, we went with Norm and then Norm quit SnoPac and SnoPac left us out in the cold. So, we went back and we visited with Tom, we told him and you know what do you want to do? And then Tom we have been fishing’ for him ever since.

Figure 31. Fishers and Tender as sun sets over Bristol Bay. Photo by Randy Billmeier.

**Tender Service**

They’d go out and they didn’t have radios. Drifters they would get out there and get into trouble. And they’d have so many fish they couldn’t get the net back in the boat with the fish you know and they would just leave their net and go find somebody and try and get another boat, it’s amazing they didn’t all drown. I mean they’d just get so many fish. And everybody today, and I mean I’m not trying to make excuses because we all try to make money but sometimes you spent more time waiting for tenders then you were fishing. You didn’t have no place to sell your fish. But all in all, if we look back and Doug will vouch for this and Tom will vouch for this. Them first few years I was here you spent more time waiting for a tender then you did fishing. I can tell you that right now! You’d have a boat full of fish and then you’d have to pick up your net. You just couldn’t keep fishing’ and think they were going to be here. Cause you had no idea when they were going to show up. If they showed up. Yep you’d just sit there. You couldn’t go catch anymore because your boat was full, they weren’t on ice and you’d sit there
and watch the horizon. “We’ll be back at the top of the tide!”, well they didn’t say which tide.

Or fifteen skiffs tied up behind waiting to deliver!

Oh yea! I mean it was a lot. We went through a lot of things. The young people here don’t appreciate the service that we do have now (Figure 31). I mean they don’t, they don’t. I do, I look back and I remember oh god you used to have boatload of fish and you would go all the way from Coffee Point, all the way across here to sell some fish you know. And then it would be rough and you’d go back and your net would be dry and seagulls would be on it. Or you’d pull it way out there and you’d have a bunch of fish and anchors would slip for so long and then you’d burn up fuel. That was another thing! They didn’t have fuel on the barges did they?!

No, we brought our own barrels.

You’d have to bring your own barrels. You had to bring your own fuel. And a PO [purchase order from cannery] was something almost unheard of. Isn’t it. You just, the cannery just didn’t give you POs [Purchase Order]. They just didn’t do it you know.

**Brailer Bags**

*What year did brailers start?*

*Well you used to throw them in a ring remember?*

Yes, the tender would lower a ring yeah! They would be loose in the bottom and then you’d have to hand pitch them into this ring and they would weigh it...take forever! Brailers started, not that long ago about 15 years. Simplest of things, but what a revolution it’s been.

*We used to do it with the pews. Aw yea. Jab it, flip em up on the scow. Not many on the beach knows what a pew was.*

*I’ve got one perfect one at home and I must have a half a dozen that have broken handles. And I got one that’s perfect. I prize it. We used them for a long time.*

*I think one of my funniest stories about unloading fish... they sent a big tender into Wood River and I’ve got those two totes on there. And they lift them out you know and they throw and if you got more fish in the bottom they throw your tote back. So, I pull up to this big tender in the Wood River and I got a load of fish on and I mean a load of fish! It was one of the best days I’ve ever had in my life. And*
they pull, my nets, my deals off. And they save your bags and they save them to the end. This lady is standing there and I said, “You got to give us our bags back!”.

“No, we hold them till the end!”. 

“I said how in the hell am I going to get these fish up here?”. 

“I don’t know but we don’t send your brailers back until the end!”. 

I looked at everybody and I thought?!? Pretty soon, the Captain comes down there and he said, “What cher problem?”. Just like that. And I said “She won’t give us our brailers back. That’s all we got is two brailers. I got eight guys ready to pitch fish. And the Captain just goes, “Oh my god!” and throws ‘em back down. [laughing] She wouldn’t give em to us. But I mean that’s just the way it was.

I remember I went up there one time to fish, I was over there fishing at Coffee Point and down there was a guy that didn’t know nothing. I pull up to pitch into the ring and he don’t have nothing! Because he figured everybody just had brailers. He was going to hook em and he didn’t have a ring and I told em so we ended up going to borrow a brailer from Steve Becker to unload that load of fish. But things change just like that all of a sudden. They used to just count the fish. The first year I was here they just counted the fish.

Counted them with a tally maker?

Yep, just like that. And I wished to hell I’d saved them fish tickets. It didn’t have pounds on it. It just had per fish that you caught. And now it’s all [pounds]. And now they’re gone.

We always counted them in Cook Inlet. And so, would the processor every time we would deliver. And then when we got here total pounds, it’s the only thing that makes any sense. Why count the individual fish?!

Yes, when I used to drift that is what you always used to hear, how many fish. And here everybody thought I was crazy when I’d ask about how many fish, you know.

Quality

In my youth, we had a barge out here that everybody put their fish on. And we would come up alongside with our tug and barge and we left this barge anchored here so we would have to transfer fish from barge to barge. So, we are talking a 60-foot barge with a giant bin on it and on a huge big day that thing would be almost full of salmon, no refrigeration! So, my
grandfather and I would get into the middle of that pile and start pewing and we literally pewed for 5, 6, 8 hours.

[gasps] Ohhhh! You would have to pew ’em all?!

You know just crazy, tried to get help you know.

Imagine the condition they were in when the arrived at the cannery, especially on a hot day. They would be sunburned actually, you would see them turn hard and red. But they were just going to can em, nobody knows the difference.

Yea we used to have a floating scow out, everyone had their own bin on there marked. You’d pull up and pitch them on there, splat they’d hit on the bottom. Throw a little burlap over and they’d come get em the next day.

What was the limit? I think they could keep their fish for two days before taking them in.

Yea 48-hour limit or something. The drift boats would have really smelly fish in their holds you know hot weather. No ice and stay out there for two days. I think that’s probably been the biggest change that I seen here is the move to quality. You know the ice on board and circulating water and all the things that we have done trying to improve quality. And the thing that upsets me is its always you guys need to improve quality. The buyers not helping us improve the quality were supposed to make up for it in price but I don’t see where that’s really happened I don’t know.

Price

The owner of the Queen, he beat the price down, didn’t he! Oh boy! He was a sailboat fisherman. I went there and sold him fish once and we were sitting there and he said it didn’t matter if you sorted your fish or not you got a 20 percent Chum average. It didn’t matter... you got 20 percent, everybody 20 percent right across the board, didn’t matter who you were 20 percent set netters you know. People who fished way up there in the slough [Queen] got 20 percent who hadn’t even caught a chum all summer lost 20 percent of their catch.

Every year we fish for him we get less money. Yep we need more competition for sure!

We sure do!

Whatever happened to the guy last year that started up and they were in Naknek last year?
They went under. It was all this hype. And they couldn’t produce what they said they were going to. Somebody bought their operation out. And I can’t tell you who.

**Year of the Strike**

Do you guys know our highest price we have had and our lowest price?

1988 was our highest price we got $2.40 a pound. Every fish was 14/15 bucks!!

I think a barrel of oil then was less expensive then fish

The lowest price I think since I have been here was 40 cents!

Well I think the lowest price was through the 1950s and 60s, we got about 60 cents a fish. Divided into let’s say 6 pounds a fish would be what a dime a pound. We would get a 50-pound king and it was a 1.50. That was heartbreaking even then to get a dollar fifty for a giant king. It didn’t matter, weight didn’t matter.

See that’s why they counted them in those days

What year was the strike year you were talking about?

1991, ooh that was a bad year

Did everyone refuse to fish? Was it a unanimous beach thing?

Yes, and then all the sudden they settled on 65 cents.

Then we went fishing for the same price they offered us. I remember that 40 cent year you saying, “They finally got us where they want us, we are fishing almost for nothing!”

We usually would never fish humpies for that and now were fishing reds for that. I guess if I had to say something that as a commercial fisherman after all years that I have put in here fishing we do the same thing over and over again every year and we expect different results. And it never happens. We are at the mercy of the packer. And I guess that’s what they say true insanity is, doing the same thing over and over and expecting a different result. But I don’t know how else a guy can come off it. You know I see different markets. I got cattle, record prices for cattle. I raise sheep, record prices. You know pigs a couple years ago we had record prices for pigs but it just seems like the most special food. Everything you pick up it tells you to EAT Salmon, it just ain’t happening. I don’t know. What I would like to do is to put me in charge of marketing, quit fishing and
marketing, why aren’t you people selling these fish why do you have such a huge inventory. Why ain’t they selling it

**Management and Sustainability**

When no one fished here was it better for the salmon to not have fisherman would they come back stronger?

I think what happens when there is nobody is fishing is there are greater peaks and valleys. But when they manage it properly they take the tops of the peaks and the bottoms off of the valleys. And get the maximum escapement that they like or at least the target.

I have been here for 34 years and we have never really, really, had a shortage of fish. You know what I mean where you couldn’t get escapement at least on these rivers. You know the people that manage this are not dummies I can tell you this right now. They are the example of the world at how these fisheries are managed.

And each and every fisherman here are managers of fish because we know what it has to take to have it come back. You never hear a fisherman complain about escapement, sometimes it’s too much but how do you control something at least it’s, it’s better than having no chicken at all to eat. Now that’s a good question though. What happened then, I think they peaked. Just like prairie dogs at home, we have thousands of prairie dogs and some places they don’t poison em and all the prairie dogs like up there, that prairie dog town is about six miles square. And people used to go up there and shoot. And they all died they got a disease called monkey pox. And here a couple years ago they all died and now you see them coming back again. Build up again. It’s kind of like grouse, you’ll have a whole bunch of grouse one year and all of a sudden you don’t have any. Rabbits are the same way. Big cycle and I would bet salmon probably did the same thing.

How do I find meaning in an obsolete profession?

Fishing is an experience of pure unfiltered main line life. It’s pure sensory experience, taps into human ancestry. Just as sitting around a campfire under the stars with your feet on the dirt creates a different tone then playing Parcheesi in a living room. No judgement, no right or wrong. It just defines and understands the human condition. A unique fishing condition.

We are the last of an archetype. Like the cowboys of the old West we are an archetype. A crucible.

I could easily argue and have provided evidence to support that the ethnographic landscape and seascape of Nushagak could be considered eligible for the National Register (King 2004). I can also demonstrate that wild salmon are an iconic species and as such are eligible for
protection under the NHPA (Brostrom 2006). For example, “the Mattaponi River in Virginia
...are regarded as eligible by the U.S. Army Corps of Engineers in part because of the cultural
importance of the shad fisheries to the Mattaponi and Pamunkey Tribes” (Brostrom 2006:7).
However, as stated many times throughout this dissertation, this does not offer protection, only
consideration. It is a cultural and ecological imperative to protect the globally significant heritage
of wild salmon. While other salmon cultures are fighting to restore salmon health (King 2004),
we cannot wait until our wild salmon are suffering or depleted to take action.
Chapter Seven

Getting to Fish Camp

_Commercial fishermen are among the lucky few who are privileged not just to visit wild places but also to participate in the life of those places, to live in a relationship to other creatures and to mystery_ (Lord xiv 1997).

There are several ways that women participate in set netting at Nushagak. Some are Captain’s and run their own skiffs, others are crewmembers on the skiff, and then there are women that maintain the flow of fishing by being beach support in the cabin (Figure 32). I consider all three roles as fishers and have participated in all at different times in my life.

The lens through which I will tell the following story is fractal, part commercial salmon fisher and part academic, part heritage, and part preservation. Ethnography as a tool helps the ethnographer know himself/herself. The voices that are least likely to speak up, sought out, or heard are often those of women and children. This is a call for more visibility of women, female fishers are becoming more vocal, declaring that “the strength of the tides is hers also”.

This will be my 16th season commercial fishing salmon in Bristol Bay, the set net fisher lifestyle offers a sensory connection and I have gained experiential knowledge that has been passed down to me and that I have pass down to my children. Set netters are unique among commercial fishers because of their connection to both land and sea. Fish camps are places where people are engaged directly with their marine and land ecosystems, anthropologically it has been called a “living group identity” (Krupnik et al. 2004). This relationship creates a unique geospatial awareness, and this interaction does allow for a particular understanding and over time creates a repository of knowledge.
I fished with a two-man crew, in a blue wooden skiff with a 75 horse Yamaha tiller outboard. I wasn’t even strong enough to pull start it. We used worn, 35 pound “Bruce” anchors, that wouldn’t grab the mud so as a result our net would flag. When a net flags this means that the inside or outside anchor slips and you lose your set and a majority of your fish. Then you must pick up the entire net, restack and reset. Sometimes you can do this and pick fish out as you pick the net up, other times you round haul, which means you pick up the entire net and pile it and fish in the boat.

It was a brutal summer of constant mistakes. Even with my Dad fishing nearby, we still would find something to do the hard way. But wooden skiffs are light and you can move them around. You can feel them as you glide over waves, the wood is warm. And we always kept
warm bailing out the boat because it constantly leaked.

Figure 33. Anchorage to Dillingham via Alaska Airlines. Photo by Randy Billmeier.

**Packing and Lists**

Ten years ago, Alaska Airlines would allow each passenger flying from Anchorage three, 75 pound bags free of charge to Dillingham, Alaska. Every pound was (and is) always utilized with fishing gear, clothes, food, whiskey and an occasional cast iron skillet (Figure 34). Often, if not always, one or more bags will be four pounds over-weight and then begins a familiar game of shifting items around or overloading your carry on to avoid an overweight baggage charge. Two summers ago, Alaska Airlines allowed three, 50 pound bags free of charge.

Figure 34. Nushagak Food Inventory. Photo by Sarah Braund.

Figure 35. Packing for Nushagak Fish Camp 2015. Photo by Sarah Braund.
For the 2015 salmon season, because I bring my two children set netting in Bristol Bay and have done so since each of them were three months old, I pack and load nine, 50 pound bags by myself. Each of us gets a bag of personal clothes and the other bags are Rubbermaid plastic totes or coolers that are filled with 50 pounds of butter, 25 pounds of cheese, fresh fruit, fresh veggies, frozen meats, and all the canned jams and pickled veggies, meat that myself and friends have canned prior, boxed wine and plastic gallons of whiskey (Figure 35). After I load all nine bags into the bed of the truck, I must find the cat and go check in for the 7 a.m. flight.

It’s four a.m., I had to stay up all night to get the packing done but figure I can sleep on the plane and sleep deprivation is just good practice for the upcoming fish season. I call the boy’s grandma and she comes over to watch them sleep as I check in at the airport. Only two bags are overweight so I slip some food into my back pack and give the ladies at the airport front desk some of the frozen smoked salmon strips and the salmon sausage we made over spring break that were in the cooler.

There is a problem, Ginger the cat. The traveling kennel that she flew in last year on the same airline is somehow no longer acceptable. Our flight leaves in 20 minutes. I have to drive home, get the kids and figure out how to make the kennel acceptable as there are no stores open in Homer where I could purchase an alternative kennel. I race home, pack the kids in the mini-van, grab a Dewalt screw gun, the drill bits and any nuts and bolts I can find. Grandma Susan drives while I start drilling holes in the kennel on the way to the airport. I manage to bolt the kennel just before we board, and we all hop on the 45 min Era flight to Anchorage.

Once in Anchorage, we pass through security and I get some strange looks for the five-pound block of cheddar stowed in my backpack. Landing in Dillingham on June 14 is a swarming bees’ hive of fishers, sport fisherman, cannery workers, and locals. A metal door is
rolled up and all the luggage begins to get thrown in by hand a bag at a time. We are now in a race with the tide. Get women and children, nine bags and cat as quickly as possible so that they and we can be loaded into several vehicles and then loaded into the skiffs so we can get over to Nushagak Point before the tide goes out.

Typical summers we have time to eat lunch at the Peter Pan Cannery and stop by Peter Pan office for a yearly picture of our family, get our Peter Pan baseball caps and give hellos and hugs to our office friends but not this year. We have myself and the boys and as well as Jane and her new baby so there is a sense of urgency in getting us out of Dillingham and settled at Nushagak as quickly as possible. The van ambles backward down the cement boat launch and bags get launched into the skiff. The van’s brakes screech, and I am thankful we have managed to come to a complete stop. Being neurotic I have packed the boys rain gear, life vests and warm clothes into the carry on just in case luggage did not show up. I start dressing them as the boat is slowly motoring out of the harbor into Bristol Bay. I realize I have forgotten my Stormy Seas life vest and rain gear. Typical. It’s a bit choppy but not bad so I settle in to get wet as I turn my back to splash that makes it over the bow. Blue tarps are wrapped around luggage and backpacks with computers inside with the hopes that at least they will be able to arrive dry.

*First Boat Ride of the Season*

*Figure 36. Hello Bristol Bay 2015. Photo by Sarah Braund.*
The first boat ride of the year instills a sense of freedom, being on the open muddy salt water and the familiar smells of the Bay induce awes and captivate (Figure 36). We pass Grassy Island, where seagulls nest and shriek as we continue to race with the tide leaving a wake that eats away at the edges of the mud and tall grasses. I hear my Dad’s words, “the tide waits for no man” echoing in my head and smile. If we miss the tide, we can get beached on a sandbar or stuck in knee to thigh deep mud. The ideal is to glide in at a high speed, kiss the gravel of the beach with the bow of the boat, unload all the gear and then anchor the boat out in deeper water because a beached boat is a useless boat.

You don’t head straight to the beach once you pass Grassy Island, you should keep driving almost as if you are going to pass Nushagak Point to clear the ever-growing sand bar in front of fish camp. If you gauge it just right you can find the slough that runs right in front of camp. This is no easy task since every summer the slough changes and every year the new deposits of mud have filled it in to such a degree it can scarcely be called a slough. The slough that used to be big enough for a 60-foot sail boat and now a toddler can throw a rock across it.

We begin to accelerate speed heading toward the beach. I scream at the kids to hold on because if we do hit the bar it will throw them to the bottom of the skiff. By luck we glide in and it appears all too easy. As we step out onto the beach and hand babies and dogs over the edge of the skiff I see family, friends, old crew and FNG’s (f__ing new guys) making their way to us to help unload the skiff.
Many hands make light work and this is often how the beach functions. Relief. There is an assembly of young able bodies carrying all the luggage and supplies directly to the porch. I get to our cabin, it is called the Big House because it is the biggest cabin at Nushagak Point, built in 2008 with bear proof walls on the first floor and a second story balcony as a lookout for bears (Figure 37). In 2006, we had a brown bear break into the barge where we lived, through the window above the sink while Dylan and I were sleeping. In 2008 I was chased by a black bear in Anchorage and then charged by a separate black bear a week later. Hence my propensity to have a more bear resistant cabin. Thankfully no bears broke into the cabin which can be a huge mess but I am in disgust by the state of the balcony.

An owl had made its nest in the rafters over the winter and there was owl pellets and poop covering the entire deck and balcony. All the luggage and gear had to be put on the ground because piles of dried white splatters and bits of bones. I had to yell at the boys to stop playing in the owl poop and that we would dissect the pellets later. First step is to get unpacked and settled.
To get water running. To find food and hook up the propane stove.

This is also key time for research. One after another boats will pull up to the beach full of luggage, groceries, nets, anchors, buoys. Fishing has not started, this is the time to get the cabins set up, hook up the water, hang nets, get the skiffs lined up, dig a new outhouse hole, and if we are lucky have a music night. The fish are not here yet but we can feel them coming, and we have to be ready. Sometimes an entire fish season can rely on one day, be ready that day and it can make or break a season.

*One time there was a barge anchored out here buying fish. And there was a really big run. And everybody did really good, the few that were fishing here you know and they loaded up! The period was closing and they went out, unloaded their fish, they counted them onto the barge.*

*Then one guy had been on a bender I guess and he missed that big period. The biggest period of the summer. He was sleeping in his tent here. And after he woke up and saw that the barge was sitting out there low in the water everybody was exhausted because they had the biggest day of the year. They were all going to sleep and it was getting toward night. Eventually people did go to sleep and he jumped in his empty skiff and ran out into the night alongside of the barge.*

*When they unloaded the canneries they just had doors that they would lift up and the fish would be carried up to the cannery so he pulled the skiff right up in front
of one of those doors on the barge when nobody was around [laughing]. So he thought that this will be an easy way to get my share. You have to pry the door up because of the weight of the fish but he gets it up and the fish don’t come right away. He lifts it up a little higher and it unleashes a cascade there is probably 20,000 salmon on the deck of this barge.

The river of fish starts down into his skiff. And he goes to shut the door when his skiff is full and whoa they are just still flowing. There is a huge river of salmon and he can’t get the door shut, he sinks the skiff right there. [laughing]. Easy money. He started hollering when his boat sank. The tally man. That’s what they called him the tally man came out (Fisher Knowledge 2015).

Children

I need to get out to the beach and talk to fishers about my project but there is a problem. Olin, my four-year-old, refuses to poop in the outhouse. He is too big for the potty chair he used last year so I need some other solution. One cabin has a flush toilet, and waste goes into a 50-gallon drum which has to be emptied out by hand and bucket every few years. But everyone else uses outhouses. I find a solution in a blue speckled cook pot that I can fit a small potty seat over. Crisis averted, but now I am on honey bucket duty for the rest of the summer.

Figure 39. Nushagak Laundromat 2015. Photo by Randy Billmeier.
I walk outside to the lean to, fire up the 1,200 horse power red Honda generator and sit down at the wooden table in the cabin kitchen. The Honda generator, affectionately named Jenny, can power the lights in the cabin, charge the battery bank to keep the vhf running continually for 24 hours a day, provide power to outlets, power a 1950s ringer/washer for laundry (Figure 39), power electrical tools, and charge iPhones and laptops. Most people on the beach do not have lights and electricity that can be powered by a generator. My Dad and an Amish kid and several others helped to run power so that when we fish late season (for pinks that run every other year) we can fire up Jenny and see in the dark. With 22 hours of daylight in early summer it is easy to get by with headlamps but as the season progresses it becomes more challenging. And this is also when the bears start to come down to check out the beach at night.

In the shuffle of gear from Dillingham to Nushagak Point my laptop cord has been severed and I cannot charge my computer. This is unsettling and I wonder how I am going to accomplish research without my lap top. When I first started fishing there were no phones, one person on the beach had a large satellite phone but communication then was only through vhf, KDLG the local radio station and word of mouth and letters. Today we have cell phone coverage and a hot spot internet connection from GCI and I call Anchorage and arranged a replacement but it is going to take 5 to 7 days and I am not even sure I ordered the proper cord.

Breathe. We are settling in and we make dinner. The food is not unpacked so we make ramen noodles for the kids, and Jane and I make a slaw out of green cabbage. The next morning, I see Jane and she is sick, very sick. Vomiting, diarrhea, and can barely get out of bed to make it to the outhouse. I take her baby for the day and am concerned that we may have gotten beaver fever (giardia) from the water. It has happened before, a porcupine once had fallen into and
drowned in the water tote up on the hill and people were unknowingly drinking contaminated water.

This situation is worrisome. We have three small children, and if we all get sick we need to get the Dillingham hospital which takes a boat-ride to the harbor and a lot of planning to catch the tides right. All the boats are in the PAF boatyard in Dillingham getting wrenched on and set up for fishing (Figure 40). By the end of the day Jane is still very sick, and I start vomiting uncontrollably. We are passing each other, just running back and forth from the cabin to the outhouse. For four days, vomiting and diarrhea, I am the sickest I have ever been in my life. This is fieldwork at fish camp.

I’m too ill to attend the Peter Pan Captain’s dinner. I am also missing the critical time when fishers and boats are on the beach. Once ADF&G announces an opener the boats will be anchored in deep water out in front of camp and everyone will be on the water fishing or shifting with other crew and sleeping. I see my dissertation interviews slipping away with each passing day. I hear a subsistence net caught two dolly vardens, an eight-pound chum and one red. The belugas are back in the big slough in front of camp, the fish are coming.
The sun comes out, it is a beautiful calm day, and it all comes together. A rare opportunity when four set net Captains have agreed to come together for a group conversation. Together they have over 100 years of fishing experience, they stood together during a strike in 1991, they have fished through storms, high prices, low prices, bankrupt canneries, divorces, births, illness. They have witnessed this fishery go from wooden skiffs with 50 horse “Mercs” to aluminum skiffs with hydraulics and 250 horse Yamahas. Their knowledge is priceless, and I realize that we will talk not because I am a researcher, but because I am a fisher and there is relationship that goes beyond an informed consent document; it is a shared heritage, one we all value and want to pass on. I also realize that a co-written collaborative ethnography is not feasible, these men are storytellers, they have learned and teach through story. This is not to say they cannot write nor that a collaborative ethnography could never work, but the knowledge that is being passed to me clearly is the art of oral story

_The Salmon Are Coming_

Old nets are being stripped with red vicki’s (victorinox knives). This is a time of great exchanging and borrowing on the beach. ‘You got to any vicki’s, black tape, sharpies? Can I borrow your long tape measurer, your screw gun? Got any eggs, salt? You have a saw? Hose clamps? A Philipps? Where is the flaring kit? Is this gas good? Is this gas or diesel in this can?’ Cork lines and lead lines are laid out in 50 fathoms on the beach being measured and marked with black sharpies to be hung. Anchor lines laid out. Splicing, mending, lashing. Bowlins and half hitches. Skiffs are anchored bow out and rest on the beach, holes dug under the lower units so props can be changed and engines assessed. Buoys and boat numbers are being painted. Everyone is getting ready for the fish, and I am still so very ill I can barely make it to and from
the outhouse. The boys are living off ramen noodles, and I have not eaten in days, and we still do not know if the water we are all drinking is safe.

I begin to feel better. I venture to my father’s cabin for some coffee. There is preseason talk. ‘How was your winter? When did you get to the Point? How did your cabin look?’ Then it’s a peculiar thing that happens every year we all visit about what price we will get paid per pound come July when the bulk of the red season is over. It is Albert Einstein’s definition of insanity, of doing the same thing repeatedly and expecting different results. We gauge what everyone has heard through various networks. This year we know it is going to be bad, maybe $.50 cents a pound for reds, a substantial reduction from previous years. We all are upset because we know we will spend another summer trying to bring in a high catch to make up for low price. It is the fisherman’s lament, when will high catch meet high price? All of our costs and expenses have increased: food, gas, airfare. And how can we sell these beautiful fish for such a low price?

Then we all agree, we got to do something different! We need to get some competition in the Bay to drive up the price. We should start direct marketing. Maybe a cash buyer will come in? We got to do something but inevitably we don’t. We fish because that is what we do, we are not direct marketers, we are not fish brokers, we are fishers.

That’s Fishing

“My nuts are on the chopping block!” my Dad pleaded. This was how I came to set net salmon at 19 years old at Nushagak. In fishing, you are either born in, marry in, or buy in. Typically, a set net skiff has a permit holder and one or two crew members. Crew size varies. The first few years I fished I marveled at my neighbor who fished solo, he said it was more efficient, by the time he explained how to do something he could already have done it. While my
Dad on the other hand may have seven people in his boat, it just depends. But two or three people is typically a set net standard.

Prior to the start of salmon season, if you are an organized fisher, you receive a plastic colored permit card in the mail with your name and permit number on it (Figure 41). Every year the card is a different color. This card must accompany a picture ID whenever commercial fishing or you are subject to a likely $300 fine, if boarded by Alaska State Troopers. Everyone has their preference for where they put their permit card, some keep it in their chest wader pocket in a Ziploc bag or in the pocket of a Stormy Seas life jacket. I favor the permit card tied around my neck with white hanging twine. Permit card to fisher is akin to passport to world traveler. You are not fishing legally without it and it is very stressful when it gets misplaced or worse dropped overboard.
On the 21st of June, the day after the interview ADF&G announces our first red salmon opener at 5pm. New crew is learning to put on fishing gear for the first time. Names are written inside rain coats with black sharpie markers. Orange rubber gloves and white cottons are doled out. Red vicki’s are taped to the suspender of the rain pants as a safety precaution. New crew is told of how once a person drowned set netting because his foot got caught up in line and he was pulled overboard, if this happens a red vicki can cut the rope and save your life. Some people have life vests others do not. Boat snacks are prepared, dry bags are packed with extra clothes for cold weather, head lamps, and toilet paper. And somebody forgot the pocket-sized tide book so they will be calling on the vhf to see what time to set out and then they will call again to see when the tide is high.

An hour before the opener we all gather in front of the old white church. Ole (my father) says the yearly blessing. He speaks about safety and about the legacy of those that have come before us. We all bow our heads and sit in silence paying our respect and silently praying for a safe and prosperous season. Then in waves, crews begin the first mud walk out to the skiffs. I
hop in the Argo, and I give Tom Sr., a ride because just the walk to the skiffs can exhaust you before you even catch a fish. One by one the boats pull anchor and head to their sites. Preparing for the first set of the season.

![Alaska State Trooper Helicopter Hovers Over Set Netters circa 2012. Photo by Sarah Braund.](image)

Then we travel to our sites, get ready to set and wait. Setting a second early means a $1,000 to $3,000 fine. Setting out one second late means you miss fish. ADF&G planes fly close overhead, examining each fisher, making sure not even one piece of web or anchor line is touching the Bay water (Figure 43). With luck the net is set without any snags, hitches or mistakes. But there is a common saying, “that’s fishing” which means if it can go wrong, it will, count on it.

“Lament of the Italian Fisherman”
We pulla da net
   to catcha da fish
   to makea da mon
      to buya da bread
         to getta da strength
   to pulla da net (Troll 25:2011).
The second function of the permit card occurs when you sell fish. To sell fish, typically you pick through your gear, sorting your fish by species as you go, and head to the closest tender to deliver (Figure 44). You pull up behind a tender and motor up to the side that is in the lee or to the side that has a working crane. Tie a bow line to a tender, sometimes you throw them your bowline, other times the tender will give you their bowline and you quickly run it through the gunnel and hand it back. You can also tie on a stern line. Then a crane lowers down a pelican and brailer bags of fish are lifted from the skiff, swung over to the tender, weighed, recorded and dropped into the refrigeration hold. Depending on the size of the tender they can hold anywhere from 35,000 to 100,000 pounds of salmon. Once all the fish have been weighed the crew is handed a wash-down hose and the boat gets reset. The permit holder boards the tender, walks into the galley and the card is stamped. The captain signs the ticket and the tender hands back a pink copy that typically goes into a Ziploc bag, if fishing is slow Captains and sometimes crew
will stay and visit, have a soda pop, coffee or hot chocolate or a combination (the Nushagak Mocha), food if it is offered. If you linger on a tender long enough, it is called being a tender rat.

**Subsistence**

When I started commercial fishing in my early twenties a young Yup’ik girl from down the beach taught me about a plant that they used in the maqui (steam bath). I later found out it is wormwood and can be easily be found along trails and pathways. In the steam people whip themselves and it helps with sore muscles. We also infuse it in warm water and drink it as a tea and use it as a liniment and a hand soak for fish poisoning (infected cuts from fish slime). After I was taught about this plant I would look for it in other places because our fishing crew tends to urinate close to the cabin trails.

_Every day try to do Maqui, men go in first traditionally men are the hunters and provide. Women steam after (Fisher Knowledge 2015)._  

Wood is scarce on Nushagak beach and much of what is burned to heat up Maqui’s is drift wood or pallets. This is why many people opt for a propane on demand shower, while others go without bathing for weeks on end or even the entire season.

The spring that supplies much of the Nushagak’s fresh water is located adjacent to the Big House. Most fish camps have to haul water by five gallon buckets, so having a gravity fed system of running spring water is a luxury. If the system gets plugged or disconnected, you trace the black poly pipes up the side of the bluff as you bushwhack your way through dwarf willow and alder. There are two large square fish totes that collect the spring water that flows out of the ground. We have never tested it but it is clear and by far the best water I have ever tasted.
Plants that are harvested at Nushagak include: blue, black, cranberry, and cloud berries (Figure 45) (sometimes referred to as salmon berries although these are not true salmon berries), fiddle head ferns, sour dock (before it turns red), and wild celery. Willow bark is used for headaches, as it is more effective and easier on the stomach than aspirin. Some people peel green alder and others just leave the bark on to smoke salmon. It is believed if the bark is not peeled it leaves a bitter flavor. The warmer summers we have been experiencing have allowed some fishers to start gardens. Rhubarb, chives, spinach, kale, and radishes are just a few of items that are being grown successfully.

Fireweed is wild plant that is prolific at fish camp. Fireweed can be eaten if you get to Nushagak in late May or early June when the shoots are small. Same timing for harvesting fiddlehead ferns. The fireweed blossoms can be picked in July and are used for jams and syrups. When fireweed goes to seed, it sends fluffy cotton floating through the air resembling a snow storm of sorts, typically this is an indication the bulk of the salmon run is over.
There is well used trail that leads up the bluff that nearly the whole beach of fishers utilizes a time or two during the salmon season (Figure 46). Some people hike up the trail for exercise or to see if they can spot a moose. The trail is one of the best means to access berries and Labrador tea.

Typically, most people focus on putting up kings or reds but we eat all species and an occasional dolly varden/arctic char. It is actually very difficult to secure a fresh or frozen salmon home pack. Not every person has a pressure cooker nor the time to can fish. And if you are out fishing you really do not have the time or energy to commit to anything else. One fisher talks about borrowing a canner from a friend back in the 1980s, “They’d give me their canner and I’d come over and can my fish because I didn’t have a canner back then and the sealer. And I’d take it back to em every year and I’d go pick it up” (Fisher Interview 2015). Most home pack is
completed by family members, or beach crew who are staying in cabins and not fishing (Figure 47).

![Figure 47. Canning salmon for home pack 2015, Nushagak, AK. Photo by Randy Billmeier.](image)

Smoking fish is a means to preserve and there are a quite a few people that do this every season (Figure 48). But smoking fish is not without difficulty, if the weather is not right the fish can get moldy and must be thrown out. One fisher recalls the large amount of fish they used to put up to feed a dog team:

> We used to spend a lot of time making strips/dry fish. When you dry fish for dogs no salt is needed, no not for the dogs. Man that was too much fish. Lots of fun but lots of work! Now we are putting up less fish because we do not have a dog team (Fisher Knowledge 2015).

![Figure 48. Silver salmon strips getting ready for smoking, 2016. Photo by Sarah Braund.](image)
To harvest caribou or moose you need to stay late in the season. In the late 1990s there were caribou located behind Nushagak but we really have not seen them around in the last ten years. Moose are also sometimes harvested, if one can be found nearby. But a majority of people do not stay past the closing of the cannery, which is usually the end of July or the second week of August if it is a successful humpy season. Humpies run every other year and we often do not know if there will be a market.

**Future Generations**

I am a fisher, I am a woman, I also am a mother and it has been a learning curve to see how these all fit together. So, when my five-year old boy asked if I could build him his own net I thought...I just don't know if I have time for that right now. I mean it's the end of the fish season and there are a million things to get fish camp closed up and we already have several little nets. Water lines have to be drained, windows and doors boarded up, luggage packed, all the leftover food has to be inventoried and taken to Dillingham for winter storage.

Yet I knew in my heart that time is precious and if I did not take the time right then and there to make a net for my son then that moment passes and we lose something precious. So, Olin and I worked all day finding bits and pieces of used cork line and lead line, random corks that were lying around the beach, and a longtime fisher friend gave us a drop piece of web and some tips on knot tying.

Our little net came together in a day, albeit a bit smaller than I/we wanted it to be. Olin's older brother laughed at him and teased him, saying that he would never catch a fish with a net that small. I told Finn, you just wait and see, I'll bet you Olin and I catch a fish with our net, it's built with love! We set our little net in the mud slough in front of our cabins, high tide was early
in the morning around 6 a.m. Sure enough, like a gift or a dream when Olin and I went to check his net the next morning he had caught the biggest, most beautiful sockeye salmon you could imagine. We both filleted it together and fed it to the crew that night for dinner. Olin was beaming, vindicated. At the end of the season he gathered up his net and put it away for safe keeping. Learning that even smallest net is capable of catching a big fish (Figure 49).

In this instance, it is a woman on the beach, in the cabin, that is not out fishing on the skiff that is passing on FK to future generations. The child learned how to make a tool, timing, location, animal behavior, and sharing. Perhaps the most significant is the passing of knowledge of the site where we caught the salmon, like myself and his grandfather before and other fishers on the Nushagak beach, it is a fishing spot that has deep cultural value that will endure for another generation.
**FK Observations**

Every salmon season is different, but set netters never operate on a business schedule, we are on the open water up to 24 hours a day, seven days a week, putting in a season otherwise known as grinding it out. Fishing is a job but it is also “life” and lifestyle. We take risks that federal and state employees would never consider. “Just keep fishing!” is a common expression, and our decisions as fishers are based on this credo. The 2015 season was very warm and dry, so much so that there was a ban on fireworks on the 4th of July, a holiday that brings the beach together annually. Another shift was a shortened season as most fishers went home after the peak of the run because the price was so low it becomes difficult to cover expenses when your daily catch of wild salmon does not cover your fuel.

In the last ten years, we have had the fortune of experiencing large salmon runs. When salmon runs are smaller, ADF&G issues fishing openers and closures. This means there is a mandatory down time for fishers. It was during these down times that fishers could get some sleep and then socialize, play basketball, cribbage, have a music night, celebrate the 4th of July, maqai, play games etc. With the large runs comes increased fishing time where we are fishing 24 hours a day and either have to miss fish or hire larger crews to split shifts. Increased crew during record low prices is a challenge which requires catching more salmon to compensate.
To accomplish this, we have transitioned from wooden skiffs to aluminum boats, larger horse power motors from 50 Mercs to 250 Yamahas, heavier anchors from 35 to over 100 pounds, insulated bins with slush ice bags, GPS, VHF, picking lights, hydraulic powered rollers, updated net hanging techniques, Argos that can drive through the mud and push or pull the heavy aluminum boats, cell phones, social media, Amazon. Some fishers felt this accelerated pace to life undermines the cultural fabric or the essence of fish camp and were lamenting that the speed of modernity had made its way into set netting.

It is noticeably warmer. One of the interviews I did people were in shorts and tank tops, it was above 70 degrees. Warm weather means warm water. The fresh water spring that has supplied Nushagak’s fresh water for generations is warmer, there is a green moss growing at a faster rate on the white totes, which also may indicate other organisms are increasing as well.

When the ocean water is warm, the salmon are warmer and softer. Many fishers note that there seems to be an increase in worms inside of the belly cavity. It’s harder to put up smoked fish with unpredictable weather and it’s difficult to keep fish cold or get them to optimal temperatures. There was an increase of fishers suffering from painful wrister rot (a skin infection
from salmon slime primarily found on wrists and forearms resulting in red erupted pock like rash). Perhaps the warmer temperatures aids in the growth of the bacteria from the salmon slime.

Towards the end of the 2016 fish season, fishers mentioned seeing salmon with pock marks particularly on their bellies.

The warming weather is also changing the local plants and berries. The fireweed is going to seed earlier. Rhubarb is able to harvest mid-July. We can now harvest berries in July that was unheard of 15 years ago. There used to be a big swamp that divided the Big House and the rest of the cabins but it is steadily drying up. There used to be permafrost underneath the barge, and it is completely thawed.

If you recall in the historic section on FK one fisher commented that they used to fish two 25 fathom nets on the shore because fish were running the beach. We rarely split a 50 fathom net now. What fishers notice is, that it appears that, fish are running deeper or down the channel.

There are a few beliefs as to why this is happening. One is that we as fishers are conditioning or culling the run. Meaning that the survivors that are making it to spawn are channel fish. Another thought is that the fish are traveling deeper because the shallow water is to warm and it is less stressful to swim in the cooler deeper water. Again, it all depends on the season, sometimes it takes a good storm to blow fish up or to get fish moving. Fishers also spoke of the belief that fish follow a scent pattern that is established early in the season. Meaning that if early run fish run in a certain pattern that other fish are likely to mimic their predecessors.

Fishers have noticed huge changes in sandbars, there is a visible island forming by Grassy Island. This silting in has been occurring since the 1900s and it is unknown how this will affect belugas, salmon, and fishers. The silting in of the channel in front of Nushagak has had social influences. Fishers are no longer able to access the beach, unless it is high tide. When the
channel was bigger, fishers could make a trip to the beach to eat or connect with other fishers over a cup of coffee. The silting has also created a larger beach in front of camp and we can now access cabins at the end of the beach that you initially had to take a trail on the hillside to reach.

The red salmon are getting noticeably smaller. This is something that we have been seeing as fishers for a few seasons but is also confirmed by our processors. Smaller fish are less desirable for marketing purposes. Not only are reds getting smaller but there also seems to be less kings being caught that are over 50 pounds. Again, it is difficult to pinpoint why this is occurring but again represents the pressing need for some sort of shared vision for fishers, processors, and fishery scientists whose futures depend on salmon sustainability.
Chapter Eight

Conclusion

The only way to identify ethnographic landscapes is to bring together the knowledge of the people who give them meaning in the first place (Evans et al. 2001). People are central, carriers and transmitters of cultural heritage; to recognize the vast inter-relationships of people and their environments researchers need to find common ground to evoke FK and IK. As stated earlier, much of CHM work in Alaska is generated through federal ties, which means that Section 106 is the operating authority. Since there are no clear guidelines in Section 106 about who to consult, this creates a need for careful and comprehensive consideration. Otherwise people lose their rights to participate in developments that affect their heritage. As is, the NHPA does force a level of consideration for cultural heritage and iconic species that would otherwise be overlooked however without policy changes it cannot offer protection.

CHM in the United States is carried out largely by archaeologists and architectural historians, so it follows that there is much more significance placed on material and artefactual preservation. Situations such as this where there are few material traces but nevertheless have heritage meaning have been deemed as intangible heritage (Byrne 2004). The implementation of cultural landscapes by the NPS was designed to address the lack of attention being paid to intangible heritage, but for the most part CHM is still entrenched in analysis on a site-by-site basis (Mathers et al. 2005). The transition from historic vernacular landscapes toward the heritage value of ethnographic landscapes moves us from a system based on the material to the realm of intangibles, the cultural relationship between people and place. The blossoming of perspectives allows movement beyond the archaeological site into a vast ethnographic landscape and seascape, where culture and nature interact.
There are often multiple perspectives, voices, and power imbalances to consider when conducting CHM research in Alaska: tribal communities, Indigenous and non-Indigenous, urban and rural, subsistence, sport hunting/fishing, commercial fishing, guides, lodges, and resource developers, and researchers. Balancing the resulting tensions creates a demand for researchers who can engage with communities with mutually beneficial cooperation. Hence, the need for research approaches that can equally integrate multiple interpretations of cultural values and also take action towards positive social change.

Here in lies the difficulty: CHM is meant to honor a shared heritage, but because it is a form of scientific management grounded in Anglo-American legislation based on perceived notions of identification, evaluation, assessment, treatment in determining valuable, significant, important events, a bridge that understands how different perspectives relate and have relationships to tangible and intangible cultural values is needed (Eide 2009). Such relationships are not often revealed, can be set aside, or misunderstood through scientific research. For CHM to be effective it must shift focus and requires a research approach and methodology that can fully comprehend and integrate contemporary ethnographic perspectives and figure out how these perspectives can be upheld within European grounded laws such as NHPA (King 2013).

Without a reconfiguration of heritage priorities CHM will continue to favor archaeology, artefactual, and material heritage (Horton 2004). The research presented in documents written for Pebble mine focused on Indigenous TEK and cultural resources in 20 Indigenous communities in the Bristol Bay region. The additional research undertaken by the EPA further elaborated on salmon, water, and Indigenous communities (EPA 2012). There has been no consideration of fisher heritage, and potential cultural landscapes, ethnographic landscapes, riverscapes and seascapes within the Bristol Bay area. Nor have wild salmon been recognized and nominated as
culturally significant iconic species under NHPA (Brostrom 2006) which would offer further consideration. Is the best we can hope for as a living fisher heritage community that Pebble mine take our heritage and wild salmon into consideration before proceeding with the action? Could policy changes offer protection and contribute to the well-being of peoples and habitat-dependent iconic species?

If we look at Figure 51, there has been a burgeoning of mining claims surrounding the Pebble site since its discovery, which means there is a high likelihood that further research will be conducted in the Bristol Bay region. Consequently, if heritage communities are not being heard or are invisible, it is up to local communities and fish camps to say something or risk the permanent loss of our fisher heritage. As long as the world has a need for natural resources, development will continue to increase, spurring CHM into action, as evidenced by the recent reversal by the EPA to allow the Pebble Limited Partnership on a fast track to applying for mining permits.

It is currently unknown if the Pebble mine will be required to conduct additional research to include fisher voices that previously have not been recognized in over 10 years of environmental and socioeconomic studies that ought to inform the mines project design and permitting. However, fishers are beginning to become more vocal with a newly announced commercial fishing advocacy group called Sustaining Bristol Bay Fisheries (SBBF). SBBF’s primary mission is to amplify the voices of commercial fishers, stating, “fishermen’s voices will not fall silent” in efforts to protect the Bristol Bay fishery, acknowledging that fishers need a seat at the table when faced with large scale development projects such as the Pebble mine (Hensen 2017).
Nushagak’s story demonstrates that by linking contemporary communities to the historical past, people can connect on a more meaningful level with the landscape and seascape and become recognized as a heritage community. Knowing that they are part of this whole, people can begin to understand that the landscape has been constructed, re-constructed and maintained over a long period of time, and they may be more likely to become active agents in this relationship. Landscapes and seascapes constantly change and continue to take on new meanings. Without documentation of ethnographic landscapes what will inevitably occur are breaks in landscape and seascape continuity (Krupnik 2004). These continuity breaks represent a loss in heritage, a portion of knowledge that may never be able to be passed on to future generations. For instance, when commercial fishing transitioned from sailboats to power boats, fishers that once sailed the Bay had a completely unique experience: without documentation, we cannot know what the seascape was like during this time. This is true of set and drift gill netters.
today, — sandbars are changing and fishers are navigating in new ways in response to climatic changes but there is currently little to no research to document how fishers are responding.

Igor Krupnik (2004) demonstrates that reconstructing the ethnographic landscape in Gambell, St. Lawrence Island, Alaska could serve as a testing ground for further documentation of ethnographic landscapes across Alaska. Through oral history, historical documents and photographs, and previous archeological work; Krupnik succeeded in reconstructing the changing landscape over a 200-year-period in Gambell. It is important to note that Gambell has extensive archaeological data and a local program dedicated to oral history documentation and education (Krupnik 2004). Most communities in Alaska may lack archeological evidence and documented traditional knowledge from elders. The loss of TEK, TLK, and FK who remember the historic period necessitates timely identification, documentation, and preservation of ethnographic landscapes and seascapes in the Bristol Bay area.

To learn from experience, practicing and academic anthropologists must endeavor to communicate new approaches to research, otherwise there is little likelihood for change. Progress, however, can be made if anthropologists judge method and theory on how well it allows them to deal with real world problems, how anthropologists create an understanding of local community and cultural perspectives, its heritage, and how that interpretation serves the interests of the present. The importance of continuous local involvement for sustainability, producing anthropological information that is easy to understand and apply, cultural sensitivity, congruence and collaboration cannot be underscored.

If we hold true to the principles of anthropology, then locals are the experts of culture. As a result, the targeted goal of a practicing anthropologist could be to empower local communities. The challenge that confronts anthropologists and CHM is that they must consider and act as
translators for the diversity of cultures, including bureaucratic, national, and even international agencies. There should be a constant effort to understand the changing and dynamic nature of cultural perceptions, economic realities, and political influences. This task may seem Herculean but with a holistic understanding of culture and a comprehension of how research approaches are being applied, the role of anthropology in advancing the visibility heritage communities becomes indispensable. Perhaps with guidance and funding, local communities can become active agents in the preservation of their own heritage. Nevertheless, heritage managers need to comprehend that heritage goes beyond historic buildings, archaeological sites, and the material world and realize that all heritage is important. Heritage is part of life and death — it is beliefs, traditions, stories, shared activities — relationships that come together on a living landscape.

When faced with the proposal of adverse large scale development, such as Pebble mine, the pursuit of cultural heritage knowledge is not undertaken for its own sake. To meaningfully participate in decision-making that affects them, heritage communities must raise their voices, otherwise power and politics will continue to guide representation.

*We as fisherman have a duty and obligation. We are privileged. We benefit from a state-owned resource created to build economy and infrastructure. What legacy are we leaving behind? We have a responsibility to speak out, put aside our best interest for our future. It’s like putting fish up river to come back!* (Fisher Knowledge 2017).
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