THE YUP'IK RELATIONSHIPS OF QILULIURYARAQ (PROCESSING INTESTINE)

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Abstract

This project explores multiple Native cultural contexts that intersect in the use and understanding of intestine. Gut (tissues of internal organs including stomach, intestine, bladder and esophagus) as a raw material was historically used by many circumpolar cultures to make items like drums, raincoats, hats, windows, sails, containers, and hunting floats. These items are abundant in museum collections, but rarely seen today in cultural practice or the art market. Intestine is a natural material that was replaced by synthetic materials, but its dual physical properties of protection and permeability are the only features replicated by plastics. Examination of intestine as an obsolete material reveals both changes and resilience in different kinds of relationships. Emphasizing the meaning and materiality of gut over analysis of artifacts made from it emphasizes interactions among human, animal, and spiritual beings over formalistic approaches privileging object interpretations. Preferential investigation of a raw material over finished artifacts focuses the study on actions and values in Native places. Fieldwork components for this study include documentation of indigenous gut processing, sewing and repair workshops in museum contexts, processing fresh intestine in the Yup'ik village of Scammon Bay, and discussion of gut with Yup'ik cultural experts. The theoretical approach uses Actor-Network Theory (ANT) as a foundation, animated with practice theory and relational ontology. Since ANT creates space for human, animal, and object agency, reciprocal relationships among these actors will be explored through frameworks of materiality, object biography, gender studies, animal personhood, and the gift. This endeavor may promote a new model for the use of material culture to illuminate Native values. In the case of intestine, its decline in use connects to changes in technology and spirituality while resilience and revitalization of gut technology promotes identity and demonstrates traditional values.

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Chapter 1 Introduction

1.1 Background

The Yupiaq term for relatives is associated with the word for viscera, with connotations of deeply interconnected feelings. One must acknowledge and take pride in a relationship, and this feeling comes from within. (Kawagley 2006, 10).

I am a career museum professional with graduate training in art history and objects conservation. I have long approached artifacts with questions about chemical composition, deterioration mechanisms, and historical context. Nearly 20 years of experience in Alaskan museums has led me to consider this view of material culture deterministic and incomplete. The general purpose of a museum has much in common with anthropology: to understand what it means to be human and to engage with ideas of similarity and difference among cultures. The standard mission of most museums includes the verbs "collect, preserve, and interpret" with a goal of learning from the past to gain insight and inspiration for the future. I am interested in how anthropological theory and methodology might help museums question assumptions about how material culture is approached within that mission. Can we better integrate understanding of both physical and social aspects of a culturally significant material as a way to better understand people through material culture? The mission of the Yupiit Piciryarait Museum will be quoted and held as an inspiration: "Cultural transmission from this generation of Elders¹ into the future..."

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¹ Elder in reference to a position of individual status in an indigenous community is capitalized as per Topkok, Sean. 2018. *Alaska Native Studies Council Writing Guide*. 6.

1.2 Gut as an Alaska Native Traditional Technology

Gut is a term used loosely to indicate tissues of internal gastrointestinal organs including intestine, stomach, bladder, and esophagus. This material was historically used by many circumpolar cultures to make drums, raincoats, windows, sails, containers, hunting floats, and other items. The animals most commonly used were marine carnivores of the suborder pinnipedia (seals, sea lions, and walruses) but whale and bear were also used by certain cultures. The Alaska Native groups whose material culture commonly includes gut artifacts are the Yup'ik, St. Lawrence Island Yupik, Iñupiaq, Alutiiq (Sugpiaq), and Unangan cultures. These are also the groups who through their historical territories had access to the widest range of Alaskan marine mammals. Possible gut materials used in specific places may be guessed from the ranges of animals available in certain locations, but the variety actually used is smaller due to cultural preferences.

1.3 Gut as an Obsolete Material

Few Alaska Native people alive in the 21st century still know how to process gut. It is rarely used today, even by contemporary artists associated with gut, such as Martina John (Yup'ik), Coral Chernoff (Alutiiq), Elaine Kingeekuk (St. Lawrence Island Yupik), and Sonya Kelliher-Combs (Iñupiaq/Athabascan). Martina John learned gut processing from her mother, Frances Usugan. Photographer James Barker's images of Frances Usugan processing bearded seal intestine in Toksook Bay in the 1980s are among the best known images of gut processing. Martina John's gut raincoats are in several museum collections, and sometimes rolls of her expertly made gut (especially small brightly dyed rolls for adorning grass baskets) are sometimes available for sale at the Alaska Federation of Natives art market or the gift shop at the Native Hospital in

Anchorage. Elizabeth Mute of Kipnuk has been known to make small model gut raincoats for sale in Bethel. Coral Chernoff, Sven Haakanson Jr., Susie Malutin, June Pardue, Martha Lalla Williams, and a handful of other Alutiiq/ Sugpiag artists have been re-learning how to process intestine from brown bears on Kodiak Island, a tradition that was suppressed during the American colonization. Elaine Kingeekuk is a St. Lawrence Island Yupik skin sewer whose work in gut is occasionally available for sale. She learned the sewing technology from her mother, Ruthelle Kingeekuk, as described in her book Seal, Thimble & Sinew Thread (2012). Sonya Kelliher-Combs is a contemporary artist of Iñupiaq ancestry known for abstract fine art and sculpture incorporating gut into artworks that also include cast plastic films imitating some of the properties of gut. Her gut artworks are sometimes available for sale, and she also produces earrings for the art market that contain small pieces of gut. Other artists working with gut in the 21st century have included Helen Dick (Athabascan), whose brown bear intestine raincoat was commissioned by the Anchorage Museum, and Selina Alexander (Athabascan) who makes beaded containers from moose bladders and other organs. But in general, gut of any kind is rare in the Alaskan art market. The most likely place to see gut on artworks today is on dolls or as a dyed decoration woven into baskets.

Historical photographs showing people using gut raincoats date as late as the 1980s. This correlates with accounts by Yup'ik people today who describe seeing their parents wear them, or perhaps wearing one themselves as a novelty in their youth. Drums made of gut are occasionally seen at dance festivals, particularly ones made by St. Lawrence Island Yupik or Iñupiaq dance groups. Ripstop nylon or aviation fabric are much more common materials.

1.4 Gaps in Gut Knowledge

Gut is also a poorly understood material in the museum context. Proper identification, attribution, and treatment protocols challenge museum professionals (figure 1). In the realm of anthropology, physical and utilitarian characteristics have been overemphasized while social and spiritual aspects of gut have been neglected (Black 2003; Issenman 1985; Oakes and Riewe 2007; Reed 2008; Wilder 1976). The idea that plastics and synthetic materials have eclipsed the utility of gut as a material is one explanation for its obsolescence. While properties of flexibility, water repellency, and vapor permeability were once valued in gut, many modern plastics share these properties but are more durable, cheaper, easier to acquire, and less vulnerable to tearing and damage from the desiccating influence of modern well-heated indoor environments. If we place gut in a context of its active production and use, however, the explanations about its scarcity become much richer. There is a culturally meaningful set of actions and network of relationships to be explored in gut production.



Figure 1: Author Ellen Carrlee studying gut raincoats at the Burke Museum in Seattle, June 2016. Photo by Amy Tjiong.

Anthropologist Lydia Black reported the most common and desirable gut material among the Unangan was sea lion, but noted,

Today hardly anyone knows the technique of processing and preparing gut, or the art of watertight seams. The dazzling embroidery is a thing of the past. Even the memory of it is dim. A few elderly women experiment, making small items such as wallets or pouches for sale as curios, decorating them in a rudimentary fashion. A few make dolls for the tourist trade and dress them in gut frocks and trousers and tiny boots. But the art of embroidery simply is not there anymore. Even if time and materials were available, the skills have been forgotten. (Black 2003,155).

Similar loss of knowledge has occurred in most of coastal Alaska, though pockets of knowledge do survive (figure 2).

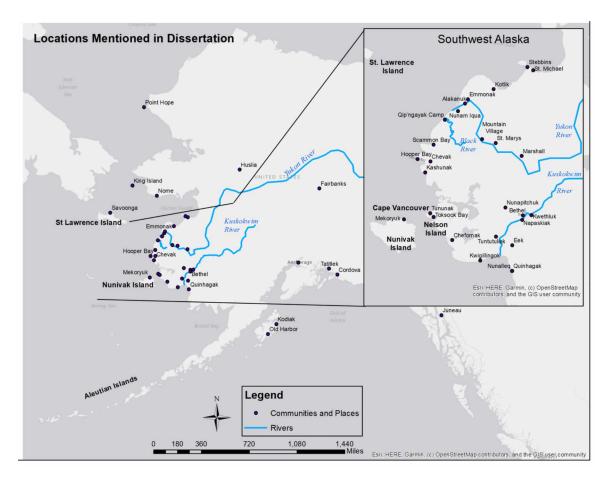


Figure 2: Map of Alaska indicating the locations referenced in the dissertation. Map by Monty Rogers, September 2020.

In an Alaska State Museum report, conservator Helen Alten asks, "From a cultural point of view, repairing a gut parka to look whole but not be usable as a protective garment and using repair materials which come from a different biosphere from the sea mammal whose gut was originally used, may seem like a total waste of energy" (Alten 1992, 5). Museum conservators have recently been exploring how to best repair gut items and have only recently started to include Native experts in that conversation. Most museums prefer to use synthetic adhesives to repair gut (Horelick, McHugh and Madden 2011). In part, adhesives are used because they are accessible and avoid issues with federal laws regarding the use of marine mammal parts. Sewn repairs are also avoided due to ethical concerns about adding new holes or making repairs that could be

mistaken for historical repairs of a cultural origin, but sewn repairs seem to be preferred by cultural experts. In a 2003 interview about drums, Yup'ik culture bearer and drummer Paul John explained, "...if it tore a little by accident, they would apply a wet blackfish skin or other fish skin to repair it" (Barker, Fienup-Riordan, and John 2010). These perspectives are examples of a gap in understanding between the priorities of museums and Native experts.

In recent years, several museum-based projects have ventured into this gap (McHugh 2007; Smithsonian 2015; Tjiong 2018). These events demonstrate interest in gut processing by both museums and Native people, yet deeper questions about materiality and meaning are rare (but see Ash-Milby 2010 and Hickman 1987 for important exceptions). The recent museum projects have also isolated certain aspects of gut production from other stages in the cultural cycle of its use, including hunting, distribution, and foodways. Consideration of a fuller context of reciprocal relationships as well as how they may have changed over time is the gap in the anthropological literature I aim to address in this project. Museums are collaborating more with source communities with insight from the successes and failures of anthropology (Fienup-Riordan 1998; Haakanson and Steffian 2009; Lincoln 2011) while anthropology has been ambitiously reengaging with material culture since the 1980s. Early anthropological traditions used material culture to support cultural evolutionist theories (Morgan 1877, Spencer 1897, Tylor 1871) in regimes that influenced museum practice for generations. But in the late 20th century, developments such as the Native American Graves Protection and Repatriation Act (Johnson 2020), ideas of object agency (Appadurai 1986; Bourdieu 1977; Gell 1998) and the so-called "material turn" in anthropology (Hicks 2010; Miller and Tilley 1996) reinvigorated material culture as a relevant focus of inquiry for cultural anthropology.

Early ethnohistorical accounts of gut processing are brief and incomplete. Gender may be an important factor in studying this aspect of gut, and many of the accounts are written by men, such as John Murdoch at Point Barrow (1892) and Lucien Turner during his time in the Aleutians 1878-1881 (2008). Gut is typically seen as the women's realm. The tools and processes of marine mammal hunting are often described in significant detail by male authors, while the issue of processing and sewing the viscera is rarely mentioned. Moss (1993, 631) refers to the biases toward the "more dramatic, technologically complex, and male-dominated activities of fishing and mammal hunting." Androcentric tendencies of the researchers may be part of the explanation, but a reluctance of women to speak with male researchers may also be a factor. Part of this may be a question of culturally appropriate social behavior, but perhaps the researcher's general ignorance or lack of curiosity about gut and sewing may have made women less likely to explain the processes fully. Another possibility is that the information is encoded in non-verbal ways of knowing.

1.5 The Research Question

The specific question of gut knowledge and meaning is embedded within a bigger question of how people experience their material world and use it to negotiate relationships. These relationships may involve human-to-human relationships such as kinship, gender, or cross-cultural encounters long explored in anthropology, human-animal relationships (humans and seals for example) or human-object relationships. These latter two kinds of relationships have recently been an active focus of anthropological attention, fueled by ideas of agency and personhood. Does an obsolete material indicate obsolete relationships?

Because of my interest in how to repair, understand, and use gut, I selected this as the raw material to explore the question. It is a material that was transformed into clothing, bags, hats, and other items by Natives, and is not used in this way in non-Native contexts. To simplify the web of relationships investigated, my project focuses predominantly on intestine, instead of the full range of organs. Intestine was used for raincoats, sails, windows, hunting floats, drinking containers, hats, bags, dance streamers, and death masks. Of these, the gut raincoat is most ubiquitous in museum collections and was used for both utilitarian and spiritual purposes. Because the Marine Mammal Protection Act of 1972 states only Alaska Natives may legally possess marine mammal parts in the United States, I collaborated with Yup'ik women to learn about this unique material.

I selected the Yup'ik culture for several reasons:

- 1. There are living women (such as Mary Tunuchuk of Chefornak and Martina John of Toksook Bay) who still process gut from seals hunted by men in their families.
- 2. There are a large number of well-attributed gut artifacts in museum collections.
- 3. The anthropological literature about the Yup'ik culture provides context, thanks to scholars such as Ann Fienup-Riordan, Liam Frink, and Margaret Lantis.
- 4. Eva Malvich, the Cup'ig former director of the Yupiit Piciryarait Cultural Center in Bethel, encouraged this investigation. She has recently worked with PhD candidates Anna Mossolova (Tallinn University, Yup'ik mask-making traditions) and Paula Schiefer (University of Aberdeen, human-salmon relationships along the Kuskokwim River).
- 5. The 2010 U.S. census indicates there are 34,000 Yup'ik people, and the Alaska Native Language Center indicates there are approximately 10,000 Yup'ik speakers. These numbers,

combined with the colonization history of western Alaska, suggest a greater degree of traditional knowledge about gut may be retained by Yup'ik experts than by their neighbors who also used gut.

The word *qiluliuryaraq* is used in the title of the dissertation to indicate the process of making the inner intestine material that could be used to sew artifacts. The term is related to the word *imarniciyaraq*, the process of making a gut raincoat (Fienup-Riordan 2007, 153). An *imarnin* is a gut raincoat. *Qiluq* is intestine, the postbase *-liur* indicates "to work on," and words that end in *-yaraq* correspond to the English present participle ending of -ing, such as "the way of V-ing" or "the process of V-ing." Thus *qiluliuryaraq* is "processing intestine" in the Yup'ik language² The emphasis on the present participle indicates a focus on action and process in this investigation.

Anthropological investigation of gut may explain the social factors that caused the decline of gut use in Yup'ik culture, and how the possible revival of gut use might index a renegotiation of those relationships. I argue here that gut is a useful platform to investigate relationships among persons in the Yup'ik world, human and nonhuman, as well as consider the consequences of how those relationships have changed over time and how they may change in the future. Perhaps gut is rarely used today because of the rise of plastics, but perhaps it is also rare because of disruptions to the relationships among men, women, and animals and the loss of consensus that gut itself retains a metaphysical connection to the animal.

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Liu, Christopher (Software developer of yugtun.com), email message to author and phone conversation, April 2020.

² Charles, Walkie (Professor of Alaska Native Languages, Alaska Native Language Center, University of Alaska Fairbanks), email message to author, May 3, 2020.

The gaps between anthropological and museum practice present both problems and opportunities. Trends in scholarship today suggest that museum practice is reaching toward anthropological approaches for engaging source communities while anthropology is re-engaging with material culture after a long hiatus. My dissertation will consider material culture as an agent in a network of relationships by using gut as a case study. The aim is to develop an anthropological approach to the *materials* of material culture that contributes to research, exhibition, preservation, and interpretation protocols that integrate Native constituencies and their priorities. The research design also includes strategies for long-lasting collaborative relationships. Research that yields an answer to the specific questions of this project and seeks to connect artifacts more closely to communities but does not create opportunities for further collaboration will have failed in its broader goals.

Chapter 2 Literature Review

2.1 Overview of Anthropological Scholarship on Yup'ik Culture

The anthropological literature about Yup'ik culture is dominated by the prolific and influential scholarship of Ann Fienup-Riordan. Her dozens of books and articles since the 1983 publication of her dissertation, The Nelson Island Eskimo: Social Structure and Ritual Distribution, have foregrounded the words of Yup'ik Elders and increasingly included bilingual books, "... for anyone interested in not only what the elders have to say but also how they say it" (Meade and Fienup-Riordan 2005, xxiv). Emphasis on the verbatim accounts of Elders is deeply appreciated in the Yup'ik world. Fienup-Riordan's early work emphasized the centrality of human-animal relationships, including reciprocal, seasonal, and cyclical patterns (Fienup-Riordan 1983, 1986, 1990, 1996, 2007). Her work moved on to descriptions and analysis of changes post-contact from both outsider perspectives (1988, 1991, 1995, and 2012) and Yup'ik Elders (1990, 2000, 2012) with an increasing emphasis on documenting the Yup'ik values contemporary Elders wish to pass on to future generations (1994, 2001, 2003, 2005a, 2007, 2016). For material culture studies, the two large-scale traveling exhibitions Fienup-Riordan organized and curated in collaboration with Yup'ik Elders have been very influential in museum anthropology. "Agayuliyararput Our Way of Making Prayer, The Living Tradition of Yup'ik Masks" from 1994 and "Yuungnaqpiallerput The Way We Genuinely Live, Masterworks of Yup'ik Science and Survival" from 2007 resulted in several well-researched publications (1994, 2005b, 2005c, 2007). Fienup-Riordan's work has also supported publications from Yup'ik scholars themselves (Andrew 2008; Fienup-Riordan 2003, Barker, Fienup-Riordan, and John 2010) and many of her books are co-authored with Yup'ik translators and scholars Alice Rearden or Marie Meade.

The earliest accounts of Yup'ik people begin with Russian explorer Lavrentiv Zagoskin in the 1840s (Michael 1967) and naturalist Edward William Nelson (1971) who was stationed at St. Michael as a weather observer for the U.S. Army Signal Corps from 1878-1881. Physician and physicist Harry Marcus Weston Edmonds recorded his notes focused on life in St. Michael and the Yukon area from 1889-1891 (Ray 1966). Ernest William Hawks spent the winter of 1910-11 as a schoolteacher in St. Michael, publishing a description of the "Inviting-In Feast" and earning an M.A. in anthropology from the University of Pennsylvania in 1913. These accounts are often referenced for their observations of ceremonies and descriptions of material culture witnessed or collected. In 1927, photographer Edward Sheriff Curtis traveled to Nunivak Island and Hooper Bay for the final volume of his massive series, *The North American Indian* (Curtis 1930). German ethnologist and art historian Hans Himmelheber visited Nunivak Island and the Kuskokwim river area in 1936-37 specifically to document artists (Himmelheber 1993) while anthropologist and "eskimologist" Margaret Lantis began fieldwork in Alaska in the 1930s and earned a Ph.D. in anthropology from the University of California Berkeley in 1939 for her work on Nunivak Island ceremonialism. Her research and publications about Yup'ik and Cup'ik culture continued through the 1960s (e.g. 1946, 1947, 1959a, 1959b, 1960, 1984). Beginning in the 1980s, a body of research emerged with a focus on linguistic anthropology, oral literature, communication, and folklore (Cusack-McVeigh 2017; Hensel 1996; Mather 1985; Morrow 1990). Phyllis Morrow also contributed several important works about symbolism and ceremonialism (1984, 1990, 2002).

In addition to Fienup-Riordan's exhibition-related publications, other scholarship based in material culture includes Henry B. Collins' chapter in the 1973 catalog of *The Far North: 2000*

Years of Eskimo and American Indian Art, the 1982 publication for Inua: Spirit World of the Bering Sea Eskimo, the catalog for Crossroads of Continents, Cultures of Siberia and Alaska edited by William W. Fitzhugh and Aron Crowell (1988), and numerous publications by Dorothy Jean Ray (e.g. 1967, 1977, 1981, 1996). Anthropologist Molly Lee earned her Ph.D. in 1992 with Nelson Graburn at the University of California Berkeley, and explored themes of art market forces, political engagement, material choices, and gender in Yup'ik art with attention to Yup'ik dolls (1999), beaded hairnets (2005a), masks (2000), and especially baskets (2002, 2003, 2004b, 2005b). Her role as curator at the University of Alaska Fairbanks Museum of the North from 1994 to 2008 informed her contributions to museology and the study of Native artistic practice in the context of Alaska (1998, 2004a, 2006a).

Archaeology in Yup'ik country has been limited, and many archaeologists have also been ethnohistorians who have studied several different cultural groups. Examples include Henry Bascom Collins (1929, 1951), Wendell Oswalt (1965, 1967b), and James VanStone (1967, 1972, 1984). Liam Frink's work, beginning with Ph.D. fieldwork in the Chevak area, includes a focus on material culture and analysis based in gendered relationships (Frink 2002, 2005, 2007, 2009, 2015; Harry and Frink 2009). Frink's work is especially strong in revealing changes that have occurred due to colonial influences, particularly in altering the power dynamics between men and women on a community level. Fienup-Riordan recently published on the pre-contact Bow and Arrow Wars (2016), based on accounts from oral history (see also Funk 2010). New scholarship is beginning to emerge from the excavations at Nunalleq near Quinhagak, which unearthed more than 60,000 pre-contact artifacts, but this material is just beginning to be

analyzed and published (Farrell et al. 2014; Fienup-Riordan, Rearden and Knecht 2015; Mossolova and Knecht 2019).

2.2 Indigenous Accounts

Several accounts from indigenous oral literature are relevant to the social significance of gut. One of them is the story of "The Boy Who Went to Live With the Seals." The narrative begins with a boy whose parents ask a shaman to help ensure his future success as a hunter. The shaman sends the boy to live for a year in the underwater seal society, a parallel world to the human one. There, a seal becomes his mentor and shows the boy how seals perceive the human world and what people must do to attract the seals. The boy experiences death and reincarnation as a seal, finally returning to the human world through the actions of the Bladder Festival (Fienup-Riordan 1996; Fienup-Riordan and Meade 1994). The so-called "seal cult" activities described by early anthropologists such as Margaret Lantis (1947) are best understood through the context of this story. Yup'ik Elder Frank Andrew tells us the boy came from the village of Naparyaarmiut, near Hooper Bay, and refers to the tale as "The Boy Who Was Taken Away by the Bladders" (Andrew 2008, 421–437). Several published versions of this story have been told by Paul John of Nelson Island. In 1997, he mentioned how seals knew about Yup'ik treatment of seal bodies: "Even though seals aren't alive, they are still aware and can feel. When the animal is butchered right after it is killed, its meat is still quivering... The person who was taken away by the seals said that when his body was being cut into pieces, he sensed it as a tickling feeling." (Fienup-Riordan 2005b, 141).

In her 1990 article, "The Bird and the Bladder: The Cosmology of Central Yup'ik Seal Hunting," Fienup-Riordan examines four versions of the story of the boy who went to live with the seals, and argues that hunters and seals perceive each other in a way that allows the social relationship of hunting to exist between them. The myth indicates hunters perceive seals as persons with an internal social structure mirroring Yup'ik culture, while seals perceive humans as seabirds when they encounter them at sea. More precisely, humans are disguised as seabirds, whose breath induces "sleep" and causes the seal to send its soul into its bladder. She supports this interpretation with symbolic and visual evidence drawn from material culture, including bird-motif hunting visors, insulating birdskin parkas, dance fans and masks with bird feathers and imagery, bird parts as hunting charms, and carved wooden birdlike figures interred in seal burials. She also describes the ritual presence of bird themes in the Bladder Festival:

While women performed the loons' mating dance at the outset of the Nelson Island Bladder Festival, men were associated with oceangoing birds at its conclusion. As the men deflated the bladders, they imitated the sounds of the birds, perhaps presenting themselves to the bladders as the seabirds that had also "burped" out air when they sighted the living seals in the hunt. (Fienup-Riordan 1990, 33).

The story of the boy who went with the bladders emphasizes human-animal relationships that correspond to Yup'ik understandings of the world that are reciprocal, seasonal, and cyclical. The Bladder Festival is further explored in section 2.2.1.

Another myth that closely links sea mammals with humans is the cultural narrative of the sea woman prominent throughout Inuit cultures of the circumpolar north from Greenland through northern Canada. She appears by many names, but Sedna is the most widely recognized among scholars. There are many versions of the Sedna myths (e.g. Boas 1888, 1901, 1907; Ipellie 1993;

Kroeber 1899, Lyon 1824, Qitsualik 1999; Rasmussen 1908, 1929, 1931, 1932; Rink 1875) as well as an impressive body of work devoted to their analysis (e.g., Carpenter 1955, 1982; Fisher 1975; Holtved 1966/67; Hutchinson 1977; Kennedy 1997; Kolinská 2006; Laugrand and Oosten 2008; Sabo and Sabo 1985; Sonne 1990; Swinton 1985; Oosten and Laugrand 2009; Wardle 1900). The most common storyline involves a girl who refuses to marry, accepts the proposal of a deceitful bird who takes her away to live in misery, is rescued by her father who then throws her overboard and chops off her fingers to save himself from retribution, followed by the fingers becoming sea animals and the girl controlling their availability to human hunters. A related storyline involves a girl who refuses to marry, is forced to marry a dog and live in seclusion with their children on an island, receiving food from her father via the swimming dog, and sending her dog/human children out into the world as various races of people after the dog is killed by her father. A third common storyline includes the girl having a bad interaction with a caribou she has created, resulting in the segregation of land animals from sea animals. All stories involve description of a cyclical relationship of Inuit taking sea mammals, souls of sea mammals going to Sedna, Sedna releasing sea mammals, and sea mammals offering themselves to Inuit hunters. While many circumpolar cultures have a so-called "Sedna" myth, this female keeper of sea mammals who controls the success of respectful hunters is not historically known in Alaska. There are reports about belief in a great man-like being who inhabits the moon and controls all the animals found on the earth. Shamans are sometimes reported to travel to the moon to communicate with this entity (Lantis 1947; Nelson 1971). However, it was much more common for Yup'ik shamans to travel to the undersea village of the game to communicate directly with the animals and determine if they were satisfied with human behavior. If so, the animals would be willing to send members of their community to be harvested by human hunters. Each species

of sea mammal had a village, and the shaman would communicate with the Elder of that village.

Animals could also take human form and negotiate their own relationships with Yupiit on land.

In addition to myth and folklore accounts, there has been a rise in Yup'ik sources available to academics since the 1970s including oral histories, films, and interviews. The 1989 ethnographic documentary Uksuum Cauyai: Drums of Winter by Sarah Elder and Leonard Kamerling is a wealth of information both in the first-person accounts and interviews featured as well as the visual accounts of ceremonial activities and dancing in the Yukon River coastal village of Emmonak during the late 1970s. Oral histories include numerous translations of accounts by Yup'ik Elders, including the extensive Bureau of Land Management recordings following the Alaska Native Claims Settlement Act in 1971. Also of interest are local school-based projects of limited publication. The Marshall Cultural Atlas online at the Alaska Native Knowledge Network, for example, includes projects from Frank Keim's classes in the 1990s that involve students interviewing Elders, describing subsistence resources, and describing details of the community. Kaliikaq Yugnek was a school journalism project in the 1970s with a mission described in its preface: "Bethel Regional High School has a student body which is 95% Yupik Eskimo. The majority are boarding students, from 52 villages scattered over 100,000 square miles. They bring with them a richness and diversity of background and a pride in their heritage which are both promise and challenge to the school. Kaliikaq Yugnek is one link between community and school. It is committed to the living heritage of the Lower Yukon-Kuskokwim. In a land where a thirty year old building is a monument, the only history is in the memories of its people...." The 1974 volume included "How the Boats are Towed to the Open Sea" and "Seal Hunting," both about Hooper Bay, as well as "Theresa Nanok: A Story" recounting her

childhood observance of the Bladder Festival and "Seal Gut Raincoat," an account from Margaret Slats of Chevak. The 1977 volume included "Seal Bladder Ceremonies: Lena Smith" who was born at Hooper Bay in 1900. Another mid-70s high school publication was *Kwigpagmiut* from the high schools of Alakanuk, Emmonak, and Mountain Village on the lower Yukon River. The 1979 volume includes "Growing Up on the Tundra" describing seal gut windows seen by Catherine Buster and Marie Augustine in Alakanuk in their youth, Axel Johnson of St. Michael describing food storage in seal intestines, Raphael Jimmy from Sheldon Point (Nunam Iqua) emphasizing the medicine man's use of whale intestine raincoats, and Mrs. Spoonbill of Mountain Village describing historic burial practices, including always taking the deceased out through the gut window, never the door.

2.3 Ceremonial Accounts and Spiritual Concerns

Accounts of ceremonies give insight into Yup'ik relationships among humans, animals, and spirits and how gut is used in a spiritual context. Margaret Lantis (1947) described a set of traditional ceremonies she calls a "seal cult." This includes rituals surrounding a kayak launch, rites for first seal caught by a young man, rites for the first of each species taken in a season, the Bladder Festival, and smaller elements like giving the dead animal a drink of fresh water, proper disposal of butchered remains, and human taboos. Everyone in the village was involved with these activities, though some were gendered or age-based (Lantis 1947). The inner organs of mammals played a notable role in many of the traditional ceremonial cycles, beginning in the fall. *Nakaciuryaraq* (the Bladder Festival) occurred around winter solstice in December, with *Elriq* (the Great Feast for the Dead) and *Kevgiq* (the Messenger Feast) also occurring in winter (Fienup-Riordan 2007). In the spring, the smaller *uqiquq* (seal party) would take place repeatedly

for the first bearded seal caught by each hunter (Fienup-Riordan 1983). Missionary John Kilbuck noted, "When guests were received from another village for the annual mid-winter dances, rolls of dried seal gut might be thrown out like streamers to the approaching kayaks" (Fienup-Riordan 1983, 225).

2.3.1 Nakaciuryaraq: Bladder Festival

The Bladder Festival was common in Alaska from Kodiak to Point Hope, and involves the ceremonial return of marine mammal bladders to the sea in reciprocal relationship with the spiritual world of the animals (Orr and Orr 1995; Fienup-Riordan 1983 and 1994; Fitzhugh and Kaplan 1982; Himmelheber 1993, Pratt 2009, Shelden 2009). The soul of an animal was believed to reside in the bladder, and the first animal of each species was honored each season, though there was a hierarchy of which species received the most ritual attention (Lantis 1947, 44). Bladders were visible representations of souls and animal personhood. In her 1990 article, "The Bird and the Bladder: The Cosmology of Central Yup'ik Seal Hunting," Fienup-Riordan underscores these concepts, but also brings attention to the role of birds, suggesting that the network of human-human and human-pinniped relations extends in more directions, with humanbird and pinniped-bird connections as well. Fienup-Riordan discusses how the seal hunter in a kayak is disguised as a seabird, borrowing from the seal's relationship with the bird to create a respectful harvesting of the seal who offers itself to the hunter. When the hunter takes the seal, the interaction will be perceived by the seal as a moment of fear and sleepiness when the seal will send its soul into its bladder for reincarnation. The consequence for the seal is described more as sleep than death, in keeping with a sense of cyclical reincarnation rather than terminal death, as in Nelson's description of killing in a Bladder Festival at Kashunak in 1879. Nelson

describes each hunter imitating the rolling over of a seal when it is killed. As they do this, each hunter repeats, "When they sit down, they are sleepy and fall down" (Nelson 1971, 388).

Justina Mike of St Marys described a men's dance, the *pualla*, at a lower Yukon bladder festival, "They would do the *pualla* songs all evening....He would have pants on. He had a seal-gut gaspeg on. As he entered through the doorway with a wooden bucket in his hand his gaspeg would crackle loudly..." (Fienup-Riordan 1996, 200). Elsie Tommy of Nelson Island described dances from Bladder Festival when she was young: "Back in those days they would dance in the fall to these very, very old songs. Their performance would create motions for the stories. The motions would personify someone working on seal intestines..." (Fienup-Riordan 1996, 199). Dick Andrew stated, "The women would do movements of picking berries. The women would do the *ingula* dances wearing a seal-gut *gaspeq*. I saw them doing *ingula* dances like that..." (Fienup-Riordan 1996, 199). At the University of Alaska Fairbanks in 1993, Maryann Sundown of Scammon Bay demonstrated a dance she described as the storyline of the making of a seal gut raincoat, beginning with how she cleaned the intestine, blew it, cut it into pieces, measured beginning with the head piece, the measurement of the length and so on. The translator, Theresa John, emphasized it was a very old song with in-depth messages (Sundown and Sundown 1993a). Zagoskin mentioned a ceremonial gut raincoat collected from lower Yukon area in the 1840s:

The women's parka covers for dancing which they wear for the important winter festivals are sewn of the very finest seal and bear intestines... As they are worn with nothing under them, they are translucent at first when perfectly dry, but when the warmth outside, the perspiration inside, and the continuous dancing soften the parka cover it clings to the dancer and sometimes to such a degree that it tears apart and occasions general merriment. (Michael 1967, 212).

Tom Imgalrea of Qissunaq (an ancestral village of Chevak) recalled witnessing the Bladder Feast as a child, describing the torch used on the procession between the *qasgiq* and the water:

They lit it, and then put it up through the *qaygiq* 's smoke window. The one who was to take it away wore sealgut rainwear. With the stake on his shoulder he took the fire down from the roof of the *qaygiq* and carried it off. Behind him the people with bladders took their bladders in hand and ran in pursuit. And when they arrived down at the lake where they were to put the bladders, they took them, punctured them, and then put them into the water. (Woodbury 1984, 32–33).

The connection between the seal's soul and human bodily air movement seems to be significant. In her analysis of Nunivak Island masks collected on Knud Rasmussen's 5th Thule Expedition of 1921-24, anthropologist Birgitte Sonne described the significance of the escaping air as follows:

Alliance between a shaman and a *lechlgach*...the meaning is 'fart,' not a particularly respectful gloss considering that *lechlgach* denotes among other things 'soul'.... From *leq* one derives *ler'artuq*, i.e. 'one who provokes a bubbling sound in the water'. This meaning conveniently agrees with the idea held by one of Himmelheber's informants about *lechlgach*: only souls, walruses, caribou and the small birds which boys kill have each a *lechlgach*, and can thus reincarnate itself again after death. It is the inflated urine bladders from these animals and the skins from these birds which are celebrated during the Bladder Festival...Regarding the seal bladders, the last rite took place on the sea ice, where holes were poked in the ice beforehand. In succession, each man would push the bladders of the sea mammals he had killed down through the holes, would then puncture the bladders and listen. A bubbling sound in the water would reveal that the animal's 'soul' was well on its way to a new reincarnation. This farting sound, an inverted inhalation, could be the basic idea behind the designation *lechlgach*. (Sonne and Rasmussen 1988, 79).

Fienup-Riordan also addressed the connection between bodily air and the soul, but cited different vocabulary: "The term for deflate (*ellelluni*) and for burp (*elciarluni*) have the same base (*elte-* to let out air), recalling the connection between the air burped by the hunter/bird when he killed the seal and the air let out of the bladders when the hunter returned the seal to the sea. Note that men

inflated bladders by filling them with their own breath (*anerneq*), a spiritually charged aspect of the human person." (Fienup-Riordan 1990b, 34).

On Nelson Island, Fienup-Riordan noted,

Although the specific procedure of the Bladder Feast is no longer practiced, all of the relations that it served to elaborate and sustain persist, including that between hunter and hunted, the individual hunter and his family, between families within the community, and between the world of the living and the world of the dead. (Fienup-Riordan 1983, 229).

2.3.2 Elriq (the Feast for the Dead)

During *Elriq* (Feast of the Dead), when relationships with the deceased and the spirit world were renewed, gifts were brought into the *qasgiq* (men's ceremonial house) through the gut skylight. "Exit up through the *eqaleq* (gut window) or ceiling is synonymous with entry into another world, as opposed to exit through the doorway that can be seen as birth into this one" (Fienup-Riordan 1983, 223). This skylight was also used as the passage through which the human body was removed at death (Fienup-Riordan 1996). Yup'ik Elders Jasper Louis, Paul John, and Joseph Tuluk at different times in 1994 recounted to Ann Fienup-Riordan the painted designs on the seal-gut windows (Fienup-Riordan 1996, 125). "Painting on seal-gut windows was... ephemeral, as the wind and weather would quickly erase this visual reminder of a tale once told. The only such paintings that remain today are the handful that nonnatives such as Himmelheber purchased and put in museums" (Fienup-Riordan 1996, 101). Himmelheber notes that the gut skylight was also painted and used for the "Inviting In" ceremony (Himmelheber 1993).

Fienup-Riordan notes,

Festival drums, like gut windows, are sometimes painted. During a performance, men used blackfish skin to repair holes in the drumhead. Elders emphasize the careful treatment drums require. In the past when someone died in the village, people disassembled their drums so as not to wake up the dead. (Fienup-Riordan 1996, 198).

"Walrus stomach was the traditional covering, but is more difficult to maintain and has been replaced." Fienup-Riordan (1983, 311). Barker, Fienup-Riordan, and John (2010) mention that early Yup'ik drums were made of sea mammal stomach that was sensitive to changes in humidity and needed frequent tightening. Beluga stomachs were also reportedly used (Fienup-Riordan 2007). Since the 1970's, Yup'ik drums have often been made with modern materials such as plastic sheeting, ripstop nylon from synthetic rain pants, or polyester aviation fabric (Barker, Fienup-Riordan and John 2010).

Another connection to the gut window is mentioned by Yup'ik dancer, artist, and scholar Chuna McIntyre:

Over the face was placed a specially prepared seal gut Death Mask. The journey to the spirit world holds many surprises, some pleasant and some not. Seal gut is translucent, light, and resilient. You can see images and shadows through the material. It was placed over the face to protect the traveler from the surprises that may bring harm during the journey. It was essentially a transparent shield, a window to the spirit world. (Hickman 1987, 10).

He submitted one such death mask — measuring 10" x 12" and made of summer-dried seal intestine, tundra grass, caribou sinew, and red-earth dye — to the 1988 traveling exhibition *Innerskins/Outerskins*. He titled it, "Window to the Spirit World."

2.3.3 Kevgiq (the Messenger Feast)

Margaret Lantis stated, "The Messenger Feast, in which two villages alternately are host and guest to each other, was probably widespread in varying form in every part of traditional Eskimo Alaska" (Lantis 1947, 68). During her dissertation fieldwork, Ann Fienup-Riordan noted, "Today these *curakat* (fr. *curukar*- to rush over) are most commonly held in the villages of the lower Yukon drainage, including an annual exchange between Alakanuk and Emmonak, between St. Mary's and Pilot Station, and between Kotlik and Stebbins." (Fienup-Riordan 1983, 308). In her recent research about the history of bow-and-arrow warfare, she convincingly cites sources that link the emergence of the Messenger Feast to the end of warfare (Fienup-Riordan 2016, 97–99).

While Fienup-Riordan emphasizes redistribution and the cessation of hostilities, Scammon Bay Elders Teddy and Maryann Sundown emphasize children and bonds forged through the actions done by the children or on their behalf. More than three hours of description of the Messenger Feast was part of a series of university classroom presentations in 1993 (Sundown and Sundown 1993a–e). The Sundowns describe the activities of the Messenger Feast in Scammon Bay occurring regularly in their youth up until the time they started to have children themselves. During the 1993 interview they described themselves as married over 50 years, which would suggest the Messenger Feast they witnessed stopped being practiced by the 1940s. Of the two messengers sent to invite the neighboring village, one is an experienced man and the other is often a young boy. The adult man returns after a few days, but the boy is left in the doting care of the neighboring village until that village arrives with the items requested. The Sundowns describe how the most important request was almost always the new seal intestine window

egaliq for the qasgiq and its fabric frame (made from flour sacks in her childhood) needed to make the window functional. Maryann describes seal intestine sewn together like a raincoat, but for a window. The next requests were for the flooring of the qasgiq, either grass matting or bearded seal skins. And the third request was for fabrics or tarps for the walls that would brighten up the inside of the qasgiq. After the needs of the qasgiq were attended, the next most important needs were the requests of the oldest Elders to the youngest children (Sundown and Sundown 1993a).

During the Sundown presentations, the focus on requesting the most important items from children, even babies, was explained on several levels. The request honors the child's namesake, and inspires the parents to make an effort because they are challenged to gather the materials and insure the products are made in order to honor the request brought upon the family. "Instead of one harpoon, you might make ten...showing your ability to hunt, your ability to sew, your ability to gather material resources." (Sundown and Sundown 1993b). The Sundowns (who presented entirely in Yugtun) used a word that was translated as, "to give up everything you have, literally...definition [sic] as taking the very clothes off your body, that's how you feel. When people give up all they have, that's how strong. Responsibility to give. Challenging you to give all you have to the community" (Sundown and Sundown 1993a).

The Sundowns also describe the Messenger Feast as an opportunity for children to be included in the participation of the family as a whole, both through the requests made by the members of the other village (especially Elders) but also to celebrate their first catch. Presenting of the children entering the *qasgiq* for the first time "properly and formally" is the beginning of officially

spreading the goods people have brought (Sundown and Sundown 1993d). When a young child picks berries for the first time, for example, or in a subsistence sense "shows some kind of productivity with their body," the family is "so honored by the child's work action it calls for celebration and the giving to the community a whole bunch of gifts" (Sundown and Sundown 1993c).

2.3.4 First Catch and *Uqiquq* (The Seal Party)

In the spring, the first catch of many animals is occasion for ritual action on behalf of the hunter, both first-time hunters and experienced hunters. These observances are common among many circumpolar cultures, but were said to be more elaborate or more severe in southwest Alaska (Birket-Smith 1959, Lantis 1947). Margaret Lantis (1947, 8) describes these general first catch rites as including:

- 1. Offerings and prayers to spirits.
- 2. Honoring of the individual animals, represented by their skins, and their return to their original medium so that they could be reincarnated.
- 3. The magic act of obtaining future good hunting and plenty of food for all by distributing the first catch to the whole community.
- 4. Securing the assistance of the old men, because they had been good hunters, knew the rituals, or both.

It is notable that the actions of young man's first time catching an animal in his life are not simply reinforcing and developing the relationship between him and the seal, but also between him and the other men of the community, the boy and his mother, and between his mother and

the seals. Lantis reports, "When a boy in his teens caught his first seal of any particular species, neither he nor his mother could eat any part of that kind of seal, not even a bit of the oil, until the end of the next bladder feast" (Lantis 1947, 6). A network of relationships between humans of different genders and age sets with respect to seals has been documented into the present day (Fienup-Riordan 1983, 1994, 2007; Frink 2005; Morrow 2002).

Ann Fienup-Riordan's dissertation fieldwork in the 1970s focused on the *uqiquq*, emphasizing kinship relations in the distribution of products and the marriage prospects of new hunters. She also described the winter dances as the "distributional counter and structural resolution to the seal party provisioning" that occurred in the spring (Fienup-Riordan 1983, 253). She describes,

The strips of cloth given at the seal party (36 inches long and 3 inches wide) are a miniature form of the bolt of cloth spread out for display during the dance, and are in a part-for-whole relation to it. The patchwork quilt that reappears during the succeeding dance distribution is a qualitative transformation of the bolt. In the same way, the gut raincoats worn during the traditional Bladder Feast and by the shaman during his spiritual hunting trips were constructed from the strips of dried gut distributed in the seal party. Alternately, the articles that exit from the cycle during the winter distribution (such as bedspreads and rain coats) are a fabrication from seal and seal party parts. Here seasonal and ritual cycling are equated with a movement between taking apart (cutting and tearing) and fabrication." (Fienup-Riordan 1983, 337).

She gives extra attention to the strips of intestine: "... strips of dried seal gut, symbolic of the gut rain parka used by the shaman during his spiritual hunting as well as the cycling between the world of men and seals such hunting makes possible" (Fienup-Riordan 1983, 254). When Alice Rearden asked Frank Andrew Sr. about the *uqiquq* in Kwigillingok, he described, "... they used to distribute things, including pieces of cloth, sinew thread, dried esophagus, assorted things, and intestines" (Andrew 2008, 121). Fienup-Riordan notes,

Over time the raw goods given at the seal party have changed in kind but not in character. Nylon thread replaces muscle sinew, a can of Crisco the oil-filled seal poke. But traditionally, sealskin line for netting was given, but not the basket [used to hold the sealskin line]. Now cloth is given, but never clothing. The things that have changed in kind come to represent more than 'raw goods' in the traditional sense." (Fienup-Riordan 1983, 251).

2.3.5 Imarnin (the Gut Raincoat)

Gut raincoats are a meaning-rich artifact made of intestine, with the material offering both physical and spiritual qualities of dual permeability and impermeability. In the physical sense, gut raincoats were made for both their waterproof and windproof qualities, used to repel water but also to insulate the wearer by holding in body heat. The exterior of the gut faced out when worn as a raincoat, remaining breathable and transmitting vapor out but not allowing liquid water to penetrate inward (Fienup-Riordan 2007; Issenman 1997). A 1978 account by Tom Imgalrea emphasizes the warmth of gut raincoats:

...when I was a boy down there in Qissunaq. In the autumn around this time, the women used to fish for arctic tomcod with dipnets...They closed off their parkas by tying them around their bodies from getting cold, but from the waist down their bare skin was exposed, since they did not wear their pants in the water." (Woodbury 1984).

Several sources refer to the gut raincoat as a critical part of shaman paraphernalia. Yup'ik Elder Frank Andrew mentions that shamans "...wore them when they exercised their powers. They couldn't be without them, even when they were not exercising their powers" (Fienup-Riordan 2007). The crackling noise the dry gut makes was a sound associated with the work of the shaman. The sound was sometimes augmented by wearing several layered raincoats and may be intended to cloak the conversation between the shaman and other beings (Ray 1977).

Dancers sometimes wore seal-gut rain parkas during performances. Practical protection from wind and rain during daily life, they were also worn as spiritual protection by an *angalkuq* healing the sick or by a woman working on a sealskin kayak cover. The crackly noise emitted when someone performed with a dry or semidry gut parka simultaneously accompanied and disguised the performer's interaction with the spirit world. (Fienup-Riordan 1996, 133).

Yup'ik Elder Peter Lupie of Tuntutuliak stated,

For the *angalkuq* would ask the seal-gut rain parka, 'What is this person like?' or 'What did she do?' The gut parka would answer that this woman did that, this woman did this. The *angalkuq* would understand what that raincoat said, but the rest of the people didn't understand it...the *angalkuq* would ask a question out loud to the gut parka and then he would listen for an answer, although there was nobody in the rain parka...the spirit of the *angalkuq* would answer. (Fienup-Riordan 1996, 133).

Another account is given by Nelson:

At a village just north of Cape Vancouver another shaman essayed to conjure the weather for me. He knelt in front of the entrance, inside of the kashim, and held both hands beneath his gut-skin shirt, rattling it about while he uttered various cries and noises. A voice was then made to reply to him from the passageway, after which he assured us of good weather. (Nelson 1971, 432).

Gut raincoats were also associated with healing: "...shaman squatting in the birth position then pulled the sick from a prone position to a standing one by means of a tightly coiled gut raincoat. The patient then released the rope of gut and was pronounced cured" (Fienup-Riordan 1983, 225).

Yup'ik skin sewer Theresa Moses of Toksook Bay describes a traditional dance enacting the story of an encounter between a person and a *qununiq* — a being whose top half is human and upper half is a seal — a being who would wear a seal gut rain raincoat. In the story, the person

spears *qumuniq* on the edge of its seal-gut raincoat before it submerged and turns into a bearded seal (Fienup-Riordan 2007; Meade and Fienup-Riordan 2005).

2.4 Suppression of Ceremonies

In his book *Yuuyaraq: The Way of the Human Being*, Harold Napoleon of Hooper Bay describes the changes to Yup'ik spiritual connections in relation to *yuut tuqurpallratni* (the Great Death) following the early 20th century influenza epidemic that originated in Nome:

The priests and missionaries impressed upon the survivors that their spirit world was of the devil and was evil. They heaped scorn on the medicine men and women and told the people they were servants of the devil. They told the survivors that their feasts, songs, dances, and masks were evil and had to be abandoned on pain of condemnation and hellfire. Many villages followed these edicts. The dances and feasts disappeared. (Napoleon 1991, 18).

These events are recounted in other sources as well (Fienup-Riordan 1991; Fortuine 1989; Kawagley 2006; Litecky 2011).

Fienup-Riordan stated:

Dancing disappeared in Moravian communities to the south of Nelson Island and along the Kuskokwim River until the 1980s. Since then, several villages have shown renewed interest in bringing dancing back into their lives. Still, the communities' respect for the handful of elderly Yup'ik pastors, raised to believe dancing is the work of the devil, prevent them from wholeheartedly bringing Yup'ik traditional acts into their church services. Catholic communities, on the other hand, can more easily disown, and put behind them, past damage by well-meaning priests preaching foreign values of a different era. (Fienup-Riordan 1996, 147).

Catholic priest Father René Astruc came to Western Alaska in 1956, and recalled, "...there was no more dancing. It was very hard to find a drum, even. And over the years, somehow I have seen it start again. And there is no stopping it now, that's for sure" (Elder and Kamerling 1989).

2.5 Curation and Meaning

Another body of literature that addresses gut comes from efforts to understand and care for objects made from the material. While the anthropological literature addresses cultural use of the material, the museum literature has been dominated by technical questions. Museum curators and conservators find gut challenging to identify, both in cultural attribution and materials of manufacture (Black, O'Leary, and Belliveau 1983; Gottsman 2005; Lin 2008; Tjiong 2009; Tijong and Levenson 2012). The specific marine mammal, organ, or processing technique used is difficult to discern visually, and there is little consensus about successful treatment techniques. Scientists who collaborate with museums on these questions are hampered by the lack of comparative sample material because of the Marine Mammal Protection Act (Black 1987; Gottsman 2005; Kirby et al. 2013, Lin 2008). A few conservators have attempted investigation into the raw material of gut (Schmidt, Feldthus, and Carlsen 1993, Stone 1990) but the vast majority of the conservation literature focuses on attempts to treat specific objects made of gut with little understanding of the broader cultural reasons behind its manufacture and use (Bogdahn 2004; Boulton 1986; Cruickshank and Gomez 2009; Dumka 1991; Fenn 1984; Gottsman 2009; Grant 1985; Grant 2013; Hill 1986; Jackson and Hughes 2009; Kite 1992; McHugh 2007; Morrison 1986; Schaffer 1974; Sully 1992).

Cognitive aspects of artifacts are important to their proper care and interpretation in the museum setting, and neglect of cultural aspects of gut conservation may contribute to the failure of

museum professionals to reach consensus on successful treatment and preservation protocols. Conservators of ethnographic artifacts have devoted considerable effort over the past 20 years to developing culturally sensitive preservation protocols for the cultural heritage of Native people (Clavir 2002; Drumheller and Kaminitz 1994; Kaminitz, Kentta, and Bridges 2005; Kaminitz et al. 2008; Odegaard 2005; Smith 1994). Recently, several conservators have begun to investigate the gut problem with cultural considerations in mind (Horelick, McHugh and Madden 2011; McHugh 2007; Smith et al. 2009, Tjiong 2018, Tjiong et al. 2017).

An important gap in the literature occurs where technical details about gut connect to social details. For example, some sources describe a common step of soaking in unfermented urine, but the urine had to be from a young boy or a girl who had not yet menstruated. Urine contains ammonia, which may be helpful in removal of fat or breaking bonds between layers for splitting or scraping, but the presence of chemical components specific to children's urine is less likely to be the reason for its use than spiritual reasons that suggest seals hate the smell of blood and sexual activity (Morrow 2002). The apparent discontinued use of urine in gut processing today might be related to cross-cultural factors that stigmatize its use. Research that explores how gut as a material is significant from a cultural anthropology perspective seems to be the lacuna in the literature.

Wendell Oswalt provides an interesting description of changes in Yup'ik material culture in his text, *Modern Alaska Native Material Culture*. He states, "...pervasive contact with United Statesians are late, dating largely from the 1930s" (Oswalt 1972, 73) but he also notes the earliest known trade inventory was from Lavrenty Zagoskin in 1843, in preparation for a trip to the

Yukon River (Zagoskin 1967, 161–162). Oswalt also found a 1931 inventory by H. Dewey Anderson of 10 households in the village of Kotlik on the Yukon River. Anderson saw an old kayak but no open skin boats, limited skin clothing and fur boots, but also rubber boots (Anderson and Eells 1935). In Oswalt's fieldwork in 1970–71, he surveyed household contents in Emmonak, Napaskiak, Nunapitchuk, and Toksook Bay. He noted seal gut raincoats were still found in Toksook Bay and Nunapitchuk, but mentioned drums with plastic heads at Emmonak and Toksook Bay (Oswalt 1972, 86). "...dental floss, nylon thread, and cotton thread have replaced sinew in the sewing of most skins and intestines into garments. Another instance of substitution is the use of a sheet of plastic to form the head of a tambourine drum, replacing a sea mammal bladder" (Oswalt 1972, 87). It is interesting to note the opening sequence of the film Uksuum Cauyai: Drums of Winter includes several minutes of trimming and tuning a sea mammal stomach drum head in preparation for a 1977 winter festival in Emmonak. Plastic drum heads can also be seen in the film. Oswalt states, "... when interacting with young adults, I came to realize how unimportant the technological traditions of the past were to the new generation and how much their fathers and grandfathers had already forgotten" (Oswalt 1972, 93.) He asserts.

The fact that no fully aboriginal forms which had lost their function were observed or reported while in the field is itself suggestive. The Yuk studied do not have an antiquarian interest in their aboriginal artifacts expressed in the ownership of such objects. This fact suggests that pride in their indigenous technology and a sense of manufacturing history do not exist in combination....the vast majority of all possessions in ordinary daily use among the Yuk are Western imports. In terms of day-to-day subsistence patterns aboriginal Yuk technological devices no longer are significant. (Oswalt 1972, 84).

2.6 Accounts of Processing

Most ethnohistorical accounts of gut processing are brief and incomplete (Chandonnet 1975; Fitzhugh and Kaplan 1982; Hickman 1987; Turner 2008; Wilder 1976). Gender may be an important factor in studying this aspect of gut, as many accounts are written by men, and gut is typically the women's realm. Androcentric tendencies of the researchers may be part of the explanation, but a reluctance of women to speak with male researchers may also be a factor. Non-verbal ways of knowing may limit written descriptions. Recent accounts of gut processing offer limited technical details (Black 2003; Hickman 1987; Issenman 1985; Oakes and Riewe 2007; Wilder 1976). Specifics of intestine processing among the Yupiit are recorded best by Fienup-Riordan (2007) in interviews with Yup'ik experts such as Neva Rivers of Hooper Bay, Agatha Nevak of Bethel, and Theresa Moses of Toksook Bay, but are still not detailed enough to instruct a learner. A recent video includes a verbal description of gut processing from Yup'ik expert Mary Tunuchuk (Smithsonian 2015). Descriptions of tailoring and clothing manufacture are better reported in the literature than processing techniques, and may include many clues to artifact attribution such as patterns, stitches, and waterproof seaming techniques (Black 2003; Hatt 1969; Hickman 1987; Issenman 1985 and 1997; Oakes and Riewe 2007).

In the limited descriptions of Alaska Native gut processing, the general sequence appears to begin with removing the viscera in the field and squeezing out the contents, followed by rinsing, soaking, removing both the inside and the outside surfaces, and inflating the remaining layer of tissue. Saint Lawrence Island Elder and skin sewer Estelle Oozevaseuk emphasized,

It took a lot of work to do that. We just cleaned the inside out – pour some water in and take it out so many times. And we used our thumb fingernail to take the outer part off.

Then, when it is done, we turn it inside out. It took a lot of work. And then we scraped the inside very gently. When done, we put them in water to try and swell them up. My grandma taught me to fill them up with water and go like this [lightly tip bowl back and forth]. And they get waterlogged. Then we would wring them, and the water turned red. And we changed it [water] so many times, so many times, until the water turns clear. (Smith et al. 2009, 79).

Rita Pitka Blumenstein from Tununak on Nelson Island was a culture bearer and teacher for many years. "I caught the tail end of the traditional ways. I saw the last of the bladder ceremonies; I witnessed the power of the shamans. Our only transportation then was dog teams, skin boats, and kayaks." An image of her is shown in the book *Innerskins/Outerskins* holding the 75-foot-long intestine of a black bearded seal. She describes processing the intestine as follows:

When you open the seal, you take the membrane out; it's in a coil. You get it home, and what a woman does first, she cleans the inside. She fills it with water and squeezes it out by hand. Then she fills it with water and washes it again. Then after they wash it real good, they take the outer part off. There's a thick layer of it. This part you use for eating. Then you work on the gut. Then after you scrape it with a clam shell, you soak it in urine overnight. Then you take it out and rinse it again, and you put it in a soap solution. In my time, we used Naptha. And you rinse it out in the water, fill it with water, and clean it real good. And then when you're ready for it, two or three women and girls go outside when it's not windy, but breezy and sunshiny and go to the fish rack where you're going to hang it, and you blow into it with air. And then you stretch it out and wrap it on those fish racks, and then you dry it that way, or you do it in a long strip... And then you leave it there until it dries, and then you cut the ends off. And then you let the air out, and you fold it in the middle, and you cut it open along the fold on the top side and roll it when it dries. (Hickman 1987, 25–26).

Another account is given by Frank Andrew Sr. of Kwigillongok:

This is how they work on the bearded-seal intestines when they bring them home. They remove the contents. And because they don't remove their outer membrane with knives, because they don't work on them like [the beluga] stomachs, they used this fingernail to do this, they'd use their fingernails and keep [pulling them apart] and remove the outer lining of all the intestines. Then they eat the outer lining raw. They are delicious when eaten raw. Or they place them in hot water first [and eat them]. And when they were

going to use the intestine to make rain garments, they'd place the intestine on a cutting board to scrape the surface to remove the inner lining. They did this with beluga intestines and young walrus intestines, and also adult bearded-seal intestines and year old bearded-seal intestines. The intestines of those four animals can be made into rain garments and were used as coverings for the skylight. That's what they always did with them. They removed that [outer lining] and the contents, and washed them, and when they made meat soup, they put [the lining] in the broth along with mare's tail plant. They added the inside lining of the intestine [to the soup], and chewing them makes a crackling noise and they are delicious. That's how they prepared them. That's what they do with their stomachs and their intestines, always removing the lining. [After removing the lining] they keep [the intestines] in water to remove the blood. The water they were soaked in became red. They constantly replaced [the water]. When they were no longer a reddish color and turned white they were ready [to come out of the water]. But as you blow air into them, you'd squeeze and hold the intestine down below a little ways and fill up part of the intestine with air, and when you released your hand, the air would suddenly shoot into the intestine down below. As you released your hand down below and squeezed the upper part to move the air farther in, it made a popping sound when you broke through the barrier. Because I used to inflate them, [my cheeks] would hurt badly when I did it. But you have to be very careful when inflating them so as not to break their outer lining. (Andrew 2008, 96–97).

In Frank Andrew's description of processing, intestine as a food item and intestine as a material inflated and saved for later use were closely linked. Food and smell stigmas are helpfully explored in some of the recent foodways literature with concepts that may be relevant to gut (Starks 2007, 2011; Yamin-Pasternak 2008a and 2008b; 2011; Yamin-Pasternak et al. 2014).

2.7 Scammon Bay

The most productive part of my fieldwork occurred in Scammon Bay, but the anthropological literature there is slim. Regional groupings in western Alaska were mapped by Nelson (1971) as "dialects" and by Oswalt (1967a) as "tribes" but a better term might be "microscale nations" (Burch 2005; Funk 2010). Scammon Bay people belong to the *Marayaarmiut*. Funk (2010) describes a triangle of Scammon Bay, Hooper Bay, and Chevak as a historical alliance during the Bow and Arrow Wars of the pre-Russian America period. They were often allied against the

villages of the Yukon River area. The Hooper Bay-Chevak dialect is one of the four dialects of the Yup'ik language, while Scammon Bay speaks a variation of General Central Yup'ik influenced by both Hooper Bay-Chevak and its Yukon River neighbors. Today the village has close connections to several of the Yukon River villages including Nunam Iqua, Alakanuk, and Mountain Village.

The Yup'ik name for Scammon Bay is *Marayaarmiut*, often translated as "people of the muddy lowlands" or "people of the little mudflats" but the village name is better understood by consideration of the word *Marayaq*, as described by Chevak educator John Pingayak "*Marayaq*, or lowlands, have the following characteristics: 1) grassy, marshy wetlands; 2) saltwater lakes; 3) coastal flooding; and 4) waterfowl and small species of birds nesting and raising their young in spring and summer" (Pingayak 1998, 11.) Other names for the place have included *Kutmiut*, Mawagmiut, Mariakmiut, and Mariak (Fienup-Riordan 1982). The ancestors of the people of Scammon Bay are thought to have come to the area at least two thousand years ago (Funk 2010; Shaw 1983) but possibly up to 4,500 years ago (VanStone 1984) and the village itself was settled around 1920 following storms that forced relocation from an old winter village called Keggatmiut. The summer residence was at a Black River location known as Oip 'ngayak, and until a few decades ago nearly the entire village would relocate there seasonally for both commercial and subsistence salmon fishing. Many families still spend several weeks there each summer and speak fondly of it. Catholic missionaries came in 1932 (Renner 2005) and Evangelical Covenant missionaries in the 1940s. A BIA elementary school was established by the Bureau of Indian Affairs in 1949 (Barnhardt 1985). Year-round settlement in Scammon Bay developed in the 1940s and the English name of the village was given when a post office was

established in 1951. The nearby body of water was named for Captain Charles M. Scammon of the U.S. Revenue Cutter Service, who was part of the Western Union Telegraph Service expedition from 1856-1867 (Orth 1971).

Many of the people I spoke with in Scammon Bay were related to Hooper Bay residents depicted in the 1953 movie short *The Alaska Eskimo* filmed by Alfred and Edna Milotte (Algar 1953). A more recent film, Igloos and Eskimo Kisses, is a 25-minute documentary of Scammon Bay made in 2011 by student filmmaker Elizabeth Hixenbaugh for a B.A. film degree at Purchase College, State University of New York. Also of note is a pair of non-academic books from by Alyette Jenness. The 1970 book, Dwellers of the Tundra: Life in an Alaska Eskimo Village, calls the village "Makumiut" and describes the seasonal activities of the village as well as depictions of various families with pseudonyms and significant stereotyping. The follow-up book from 1989, In Two Worlds: A Yup'ik Eskimo Family, is co-authored with Scammon Bay resident Alice Rivers, describing the life of Alice's mother Maryann Sundown and descriptions of village life. Both books are full of photographs and include text suitable for grade school libraries. Another non-academic memoir, Wake of the Unseen Object: Among the Native Cultures of Bush Alaska, includes a chapter about journalist Tom Kizzia's visit to the village and nearby fish camp at Black River (Kizzia 1991). In 1993, eight audiocassette recordings were made of interviews with Scammon Bay Elders Maryann and Teddy Sundown at the University of Alaska Fairbanks. These feature scholar and educator Theresa John of Toksook Bay as the translator. Neva Rivers of Hooper Bay was filmed by television station KYUK demonstrating the sewing of a seal gut raincoat in 2006. Her description is completely in Yugtun. In 2011, several newspaper and radio pieces reported on the passing of Maryann Sundown (1918–2011) who was known as the 'dance

diva of Scammon Bay' and much beloved for the humor and cross-cultural accessibility of her performances.

A pair of recent doctoral dissertations based in this region of Yup'ik country focus on active narrative traditions emphasizing non-human sentience and the power of stories. In 1996, Holly Cusack McVeigh traveled to Hooper Bay to engage in visual repatriation of photographs taken by Alfred and Elma Milotte during the filming of the *Alaskan Eskimo* and housed at the Alaska and Polar Regions Archives at the University of Alaska Fairbanks. Her 2004 doctoral dissertation about storytelling in the community was the basis of her 2014 book, *Stories Find You, Places Know: Yup'ik Narratives of a Sentient World.* This research emphasizes the place-based knowledge encompassed in stories, as well as the context and audience each specific telling of a story is meant to influence. Many of her experiences were similar to those of Katrin Simon-Sakurai's fieldwork in nearby Scammon Bay from 2007–2010. Simon-Sakurai's doctoral dissertation, *Never Alone: Narratives of Spirits in an Alaskan Yup'ik Community*, also describes engagement with a sentient environment, concluding that telling and listening to stories is an empowering and healing act.

There have been a number of government publications associated with subsistence activities in recent years which are useful in supporting analysis of the value of plant and animal relationships to the community (Himes-Cornell et al. 2013; Ikuta et al. 2016; Huntington, Nelson, and Quakenbush 2017). The 2013 Alaska Department of Fish and Game Technical Paper No. 417 includes a great deal of subsistence information for Scammon Bay.

Approximately 12% of household heads harvest marine mammals (20% process them) as

compared to 16% hunting large land mammals and nearly a third of village household heads taking fish and birds. However, 69% of the population hunts, fishes, traps, or gathers some kind of subsistence resource. When surveyed about using wild resources, the percentages are very high: 91% for marine mammals, 92% for birds and eggs, and 98% for fish and large land mammals. "The average harvest was 2,131 lbs usable weight per household...community households harvested an average of 22 kinds of resources and used an average of 31 kinds of resources. In addition, households gave away an average of 10 kinds of resources, and received 11 kinds" (Ikuta et al. 2016, 37). In 2013, the marine mammal harvest included 189 ringed seals, 82 bearded seals, 56 spotted seals, 24 beluga whales, 7 ribbon seals, and 4 walruses. Generally, ribbon seals are fed to the dogs, but their hides are prized for their distinctive markings. A great many more seals were taken in the fall harvest of 2013 (250 from September to November) than in the spring (66 from April through June). The study also noted that while most household heads had been born in Scammon Bay, several household heads had been born in neighboring villages, especially Hooper Bay, Alakanuk, Nunam Iqua, and Mountain Village. The highest sharing of subsistence resources outside the community occurred with Bethel, Hooper Bay, Kwethluk, and Mountain Village followed by moderate sharing with Chevak, Toksook Bay, Point Hope, Anchorage, Napaskiak, Nunam Iqua, and Pilot Station (Ikuta et al. 2016).

Chapter 3: Theoretical Orientation and Methodology

The theoretical orientation of this dissertation is based in a relational approach to material culture animated with practice theory concepts of mutually constructive agent/system dialectics and non-verbal ways of knowing. In the dissertation project, I explicitly consider agency for objects through materiality and object biography, while approaching animal agency through ideas of personhood and the gift. Human-human agency is explored with an emphasis on practice and gender. Relational ontology is used to consider both spirits as agents and changes in the network over time. In the vast literatures associated with Actor-Network theory and practice theory, I give preference to ideas that harmonize with Yup'ik ways of knowing and can be effectively wed to methodology. In the marriage of theory to methodology, networks of relationships are identified in the historical literature and in my fieldwork³ to explore the question of how Yup'ik relationships manifest in the obsolescence or persistence of gut technology.

3.1 The Network: All the Agents

Actor-Network Theory (ANT) is perhaps the best-known of the relational approaches to culture. In the most-referenced versions of the theory, individual actors form nodes in a network and the connections between them are relationships. An active give-and-take between the actors animates the network and creates an overall system that might be described as a society (Latour 1987, 2005; Latour and Lemonnier 1994; Law and Hassard 1999). One of the architects of ANT, sociologist John Law, offers this definition:

Actor-Network theory is a disparate family of material-semiotic tools, sensibilities and methods of analysis that treat everything in the social and natural worlds as a

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³ Fieldwork was done in accordance with the standards of the UAF Institutional Review Board, project number 43264-7, title "Native Cultural Understanding of Gutskin in Alaska," approved 2014-2020.

continuously generated effect of the webs of relations within which they are located. It assumes that nothing has reality or form outside the enactment of those relations. Its studies explore and characterise the webs and the practices that carry them. Like other material-semiotic approaches, the actor-network approach thus describes the enactment of materially and discursively heterogeneous relations that produce and reshuffle all kinds of actors including objects, subjects, human beings, machines, animals, 'nature', ideas, organisations, inequalities, scale and sizes, and geographical arrangements. (Law 2007, 2)

An appealing aspect of ANT is the definition of the *actor* as, "Any element which bends space around itself, makes other elements dependent upon itself, and translates their will into the language of its own" (Callon and Latour 1981, 286). In this sense, an actor can be anything or anyone with agency. The term *heterogenous network* is used to indicate that agents are both human and non-human (Law 1992). Latour later suggested the term *actant* instead of *actor* in an effort to emphasize that agents can be non-human. The notion that objects have agency is a key idea in ANT, and is fundamental to the concept of *generalized symmetry*. This means the agents (persons and objects) are all equal, without a particular order or hierarchy. The implications of this construct were debated by Latour and Lemonnier (1994). Carl Knappett sums up the argument well:

...it is neither the gun that makes the human act (materialist explanation) nor the human that decides and then acts with the gun (sociological explanation). Instead, he [Latour] argues, the two bring each other forth. The active agent is neither human nor gun, but human-with-gun, and any attempt at isolating either individual element is hopeless. (Knappett 2007, 20).

For Latour, people and objects exist together in a "flattened" network, meaning the network has no hierarchies, no top/bottom, micro/macro or perhaps most importantly no structure to engage the agent in a dialectical relationship. All are equal, everything is immanent.

The term *network* has been challenged by scholars such as Tim Ingold. Ingold chafes against the presentation of the network as a construction of entities connected to each other by relationships and prefers to consider the model as a web or a meshwork, asserting,

The meshwork consists not of interconnected points but of interwoven lines. Every line is a relation, but the relation is not between one thing and another...rather, the relation is a line *along* which materials flow, mix and mutate. Persons and things, then, are formed in the meshwork as knots or bundles of such relations. It is not, then, that things are entangled in relations; rather everything is itself an entanglement, and is thus linked to other things by way of the flows of materials that make it up. (Ingold 2007, 35).

Ingold theorized another model, with a spider moving about and generating the network as a web through its own creative body (Ingold 2008). The spiderweb model is limiting in that it has but one active agent. Ingold is fond of living entities as the basis of the model, such as the mycelium suggested by biologist Alan Rayner (1997) or the rhizome described by philosophers Gilles Deleuze and Félix Guattari (2004). For the purposes of this dissertation, the term "network" will be used both for the legacy of relational debates the term evokes in anthropological and sociological circles, and also for the colloquial sense English speakers have of "networking" and generative activity associated with "work". But Ingold's useful sense of making, living, and becoming will be retained. In particular, those concepts connect well to *upterrlainarluta*, the Yup'ik concept of "always getting ready" used in the title of James and Robin Barker's 1993 book about Yup'ik subsistence and village life.

Activating the network as a moving, changing entity is something ANT theorists intended from the start with the concept of *translation*: "The process of the alignment of interests of a diverse set of actors with the interests of the focal actor" (Callon 1981, 59). It is through the pressures,

persuasions, and negotiations of translation that actors cause change and are changed. Actors must join a network and then must repeatedly agree that the network is worth building and defending. Without participating actively in this process, an actor is no longer a part of the network. Michel Callon (1984) describes four steps or "moments" of translation:

- Problematization A focal actor defines identities and interests of other actors that are
 consistent with its own interests, and establishes itself as an Obligatory Passage Point
 (OPP) thus rendering itself indispensable.
- 2. Interessement Negotiating with actors to accept the definition of the focal actor
- 3. *Enrollment* Other actors in the network become aligned with interests defined for them by the focal actor.
- 4. *Mobilization* Monitoring the interests of various actors so their participation continues and the network perpetuates.

In Latour's 2005 book, *Reassembling the Social: An Introduction to Actor-Network Theory* it becomes clear that ANT is really more of a method than a theory. The "method" is tracing the associations, alliances, and actions of the actors in each particular situation. ANT is a "sociology of associations." For Latour, there is no such thing as society. Each actor is surrounded by star-shaped networks of connections to other actors, and these connections must be constantly recreated and retraced if they are to endure. The social is all about relationships.

Latour is not fond of top-down explanations of how structure or context is deterministic. He prefers bottom-up explanations of how the parts create the whole, or even in the Ingoldian sense,

how you cannot or should not try to create a distinction between the part and the whole. One body of work, exemplified in his 1979 book *Laboratory Life* with Steve Woolgar, explores the way scientific knowledge has a substantial social component and is not the impartial reality scientists assert it to be. In sociology, this approach is sometimes called "social constructionist." The idea has strong roots in the phenomenology of the Husserl/Heidegger variety, where reality is a social construction instead of a "scientific" one in the sense of the Western intellectual tradition. Although Latour and Woolgar indicate shortcomings in Bourdieu's ideas of capital and field, these concepts are still used extensively throughout the book to explain the way scientific knowledge is generated. Latour and Woolgar's 1979 text hints at the ways practice theory might be utilized as a complementary approach.

The focus on a constantly regenerating relational network is a strength ANT holds in common with Yup'ik non-linear models of interaction and agency (Charles 2008; John 2009; Kawagley 2006; Parsons 2015). One criticism of ANT is that it is "immoral" and leaves out spiritual concerns. Integration of Yup'ik epistemology helps address this shortcoming. One example is the tetrahedral metaphor of *Angayuqaq* Oscar Kawagley (figure 3). He describes the relationships as follows:

The structure of the tetrahedron allows for several important dynamic forces to be examined in relation to one another. If we use the three corners of the base to represent the human being, nature, and supernature (or spirituality) respectively as elements in a common circle of life, we can see the apex as representing the worldview that overarches and unites the base elements of our existence. The lines connecting these "poles" can be seen as the life forces that flow all ways between and among the human, spiritual and natural worlds and are united through the worldview. The three base poles all provide essential supports to the Yupiaq worldview. This tetrahedral framework allows for triangulation whereby human beings can locate themselves in relation to the other domains of their existence and check to make sure that the values and traditions are in

balance. It illustrates that the Yupiaq worldview is based on an alliance and alignment of all elements and that there must be constant communication between three constituent realms to maintain this delicate balance. When everything is in alignment, it is an exceptionally strong structure. (Kawagley 2006,14–15).

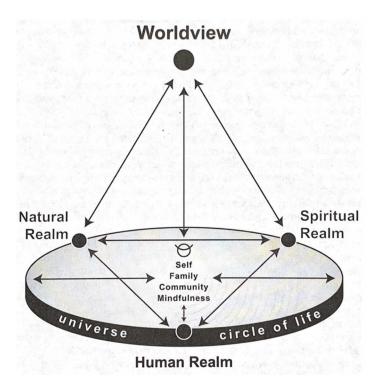


Figure 3: The tetrahedral metaphor. Angayuqaq Oscar Kawagley, *A Yupiaq Worldview: A Pathway to Ecology and Spirit* (Long Grove, IL: Waveland Press, Inc., 2006) 15.

Another weakness of ANT is the sprawling nature of its inquiry. Where are the edges? Where does it start and stop? Everything is both an actor and a whole network unto itself. Each actor is connected to a vast number of other networks, and there are chains and networks of associations infinitely in all directions. ANT itself address the problem of how to put boundaries on the network. *Punctualization* simplifies network complexity by converting an entire network into a single point or node in another network (Callon 1991, 153). Punctualization creates a "black box" containing other networks that will not be explored. Another way ANT controls the scope of the network is through the Obligatory Passage Point (OPP). The OPP creates an issue of concern that all actors in the network agree to address and creates a filter to determine what other

entities are included in the network (Callon 1984). For the purposes of this dissertation, seal intestine will be theorized as the OPP. The ways that seal intestine was used and thought about in the past will be compared to the ways it is used (or not used) and considered today. Placing it as a possible agent in the network helps identify reasons for its obsolescence beyond mere utilitarian performance.

While ANT grants the exciting possibility of animals and objects as agents, it gives little specificity about how to address them, and the theory is more descriptive than explanatory. The theoretical approach of my dissertation addresses those weaknesses in ANT by integrating complementary theoretical approaches that explore certain agent-to-agent connections in the network more rigorously.

3.2 Human Agents Theorized Through Practice and Gender

Significant literature exists in a number of fields that explore the relationship between Actor-Network Theory and practice theory (e.g. Reckwitz 2002; Schäfer 2017; Schatzki 2001; Schinkel 2007), but anthropological research about human agency in a network that explicitly connects with practice theory has more in common with a "communities of practice" approach (Lave and Wenger 1991; Wenger 1998; Wenger and Wenger-Trayner 2015). Examples include Gíslí Pálsson's *enskilment* (Pálsson 1994) and a number of recent archaeological analyses (e.g. Blair 2015; Brown, Timbrook, and Bardolph 2018; Sassaman and Rudolphi 2011). The "communities of practice" framework neglects animals and objects as agents, but demonstrates the ongoing appeal of connecting networks with practices. The concept of practice is crucial to explaining the

way humans interact with each other in a network, and is best explored by a review of the key ideas of practice theory founder Pierre Bourdieu.

3.2.1 Pierre Bourdieu

In the 1970s, post-structuralist debates about individual free will and self-determination led to the development of practice theory. Structuralism held that structure was responsible for the behavior of individuals, but post-structuralism problematized the dichotomy of structure and agency, exploring questions about the influence of the individual on the structure of society. Pierre Bourdieu was one of the leading post-structural theorists and endeavored to generate an explanation of the interpenetration of structure and agency. This relationship worked based on an action he termed "practice."

Several concepts are at the heart of Bourdieu's practice theory: *habitus, doxa, capital,* and *field.*He describes his version of *habitus* as,

... systems of durable, transposable dispositions, structured structures predisposed to function as structuring structures, that is, principles which generate and organize practices and representations that can be objectively adapted to their outcomes without presupposing a conscious aiming at ends or an express mastery of the operations necessary in order to attain them. (Bourdieu 1990, 53).

Bourdieu's *habitus* has an infinite capacity to generate thoughts, perceptions, expressions, and action, but only within the historically and socially situated limits. In this we are reminded of Marx's oft-quoted idea from 1869 that people "...make their own history, but they do not make it just as they please, they do not make it under circumstances chosen by themselves, but under circumstances directly encountered, given, and transmitted from the past." (Marx 1963, 15).

Bourdieu emphasizes, "The relation to the body is a fundamental dimension of the habitus that is inseparable from a relation to language and to time" (1977, 73). This physical aspect he calls bodily hexis: "a durable way of standing, speaking, walking, and thereby feeling and thinking" (1977, 70). These ideas have special relevance to a practice theory for material culture because of the bodily interaction of humans with the material world. "The world of objects, a kind of book in which each thing speaks metaphorically of all others and from which children learn to read the world, is read with the whole body, in and through the movements and displacements which define the space of objects as much as they are defined by it" (1977, 76). The reproduction of social structure is due to the physical action individual members take because of their habitus in what is described as a "system of circular relations that unite structures and practices" (Bourdieu and Passeron 1977, 203). Bourdieu stops short of suggesting they actually create each other. The *habitus* acts upon and through the individual as a kind of embodied history the person is not consciously aware of: doxa. "Doxa is the relationship of immediate adherence that is established in practice between a habitus and the field to which it is attuned, the pre-verbal taking-for-granted of the world that flows from practical sense" (Bourdieu 1977, 68). Similar ideas can be found in Maurice Bloch's "connectionism" (1991), and even Clifford Geertz's "deep play" (1973). While these theorists insist on unconscious knowledge, it is worth considering kinds of knowledge that may be conscious but not verbal: emotion, intuition, and athleticism for example, or knowledge about status, honor, or motivations. Setting aside the assumption that conscious thought must be verbal thought opens up more possibilities for a practice theory that engages material culture and animals.

Field is the term Bourdieu uses to describe the situation or context in which habitus operates. If habitus is history embodied inside an individual, then field is history embodied in the physical world outside the individual. Field is a social setting or sphere of action such as an institution, social group, workplace, or athletic arena. Bourdieu attempts a definition: "A field is a field of forces within which the agents occupy positions that statistically determine the positions they will take with respect to the field. These positions-takings being aimed either at conserving or transforming the structure of the relations of forces that is constitutive of the field" (Bourdieu 2005, 30). Each person brings his or her own learned but unconscious resources to the field in the form of habitus. Each person has tacit assumptions about the rules of the game, the doxa, played on the field. Bourdieu's field gives us a place to play out Callon's four "moments" of translation (problematization, interessement, enrollment, and mobilization). In the field, we can see actors taking their positions, and the focal actor taking a lead role to establish itself as the Obligatory Passage Point. Both Callon's translation and Bourdieu's practice are concepts about action that perpetuates the network.

The field is also the place where *capital* is generated and converted from one form to another. Shifts in capital can change the field. Some agents will have a stake in perpetuating the field in its current iteration because it helps them accumulate more capital. Other agents will have a stake in changing the field to better suit their own pursuit of capital. Actions of individuals therefore can cause the field to change.

"Capital is accumulated labor (in its materialized form or its 'incorporated,' embodied form) which, when appropriated on a private, i.e., exclusive, basis by agents or groups of agents,

enables them to appropriate social energy in the form of reified or living labor" (1986, 241).

Bourdieu defines four types of capital:

- 1. Economic capital: the familiar concept of capital as money and assets
- 2. Social capital: resources or advantages linked to membership in a group or social networks.
- 3. *Cultural capital:* resources or advantages that come from specialized skills and knowledge. This particular type of capital has special relevance in material culture studies. For Bourdieu, cultural capital comes in three states:
 - a. *Embodied*, or "external wealth converted into an integral part of the person, into a habitus" (1986, 243).
 - b. Objectified in the form of cultural artifacts such as books, instruments, or machines.
 - c. *Institutionalized*, such as an academic qualification.
- 4. *Symbolic capital:* resources or advantages derived from honor, prestige, or recognition bestowed upon a person by others based on the success of an individual in achieving the other three types of capital.

For the purposes of this dissertation, examples of *habitus* include the ways Yup'ik hunters and marine mammals behave during hunting activities, the way Yup'ik people "pukuk" certain Native foods, and the physical expressions of distress and comfort shared by women in the setting of a church meeting. The most insightful *fields* were the ones in Yup'ik places such as hunting locations, the school, the household kitchen, and the church. Changes in the meaning and perceived utility of gut are possible examples of *doxa*. Finally, *capital* might be a key explanation for why interest and knowledge about gut production continues. While the inner organs of mammals have little economic value, the knowledge and actions of making gut are

linked to social capital (being part of a subsistence network) and cultural capital (knowing and demonstrating traditional indigenous skills and values) and might even contribute to symbolic capital, such as the benefits enjoyed by recognized Elders.

While practice theory and Actor-Network theory complement each other in various ways, a serious issue of divergence is seen in their respective attitudes toward Marxist ideas of base and superstructure. Bourdieu borrows heavily from the idea that practical actions among different classes (Marxist modes of production) and objects (Marxist means of production) in the "base" shape the "superstructure" — the ideology that helps define a society (including art, family philosophy, politics, religion etc.) and vice-versa. Like Marx, Bourdieu sees these two categories as mutually constructive. His concept of "practice" has much in common with the Marxist concept of "praxis", which focuses on individuals who can act in the material world to change the circumstances they have inherited (Marx 1844, 1845). Latour rejects the duality of base and superstructure, preferring to flatten the model to strictly deal with relationships among agents. These theoretical contradictions will be addressed based on their explanatory power and their relevance to Yup'ik worldview. Whether we consider the network flat or incorporate a duality like base/superstructure, Marx remains useful for his articulation of the dialectic, a process of change that happens through a struggle to resolve oppositions. In dialectics, meaning is relational: connected and defined by its interpenetration with other entities. Dualities or opposites are important for the tensions they create and how those tensions are resolved. In this dissertation, I use the idea of dialectic to examine key relationships among humans, animals, and objects in many directions.

3.2.2 Gender

Continuing with the focus on humans in the network, it is impossible to analyze the human relationships involving gut without consideration of gender. Complementary relations between men and women in Yup'ik society were fundamental to successful seal hunting, production, and distribution. Anthropologist Liam Frink has asserted that patriarchal and sexist forces in the colonial project have contributed substantially to the changes seen in Yup'ik culture since contact. In "Storage and Status in Precolonial and Colonial Coastal Western Alaska," he establishes that women's power within the community was undermined when the control of food distribution changed from underground food storage systems controlled by women to aboveground caches controlled by men (Frink 2007). His research on technology and production of dried fish (Frink, Hoffman, and Shaw 2003), animal hide (Frink 2005), low-fired cooking pots (Frink and Harry 2008), and seal pokes for oil storage (Frink and Giordano 2015) underscores the importance of gendered tensions in contemporary Yup'ik society and indicates a material culture component to its expression.

The ethnographic literature about gender and food production also provides examples of relationships among men, women, and food sources with special attention to the action, non-verbal knowledge, and bodily ways of knowing that feature prominently in practice theory. Examples include Zona Spray Starks' work on indigenous food preservation in the Arctic (Starks 2007 and 2011) and Sveta Yamin-Pasternak's work on mushrooms (2007 and 2011) and fermented foods (Yamin-Pasternak et al. 2014). Food connects material culture, humans, and animals in emotional and sensuous ways beyond basic survival.

Activities surrounding gendered food and artifact production involve culturally specific bodily interactions throughout the network. Practice theory indicates these actions co-construct both the individual and society (or extended to ANT, the actor and the network). Unconscious bodily knowledge is thought to cause people to use their bodies in socially constructed ways. Important explanations of how this happens can be found in Marcel Mauss' "techniques of the body" (1973), Pierre Bourdieu's "habitus" (1977 and 1990), Michel Foucault's "discipline" (1977), Tim Ingold's "dwelling" (2000), and Theodore Schatzki's "skilled body" (2001). Processing intestine is something that can be known abstractly through images or the written word, but cannot be practically understood without bodily knowledge. Eating Native food also cannot be understood without a bodily experience. Examples of bodily knowledge familiar to non-Natives might include driving a car with a stick shift or throwing a runner "out" in baseball. Knowledge of this variety cannot be mastered without physical action and the deeper implications about cultural values associated with the skill extend beyond mere technical proficiency.

Gender studies often emphasize problems and conflicts between the genders, and investigate how women are disadvantaged and marginalized. There is less in this literature about ways things work well between the genders. This dissertation emphasizes what works and what parts of the network are persistent, awakened, revitalized, and continuing. This is also a perspective that might be more in harmony with indigenous values. Fienup-Riordan mentions, "Rather, the division of labor on Nelson Island seems to provide us with an example of sexual equality with a difference. Along with sexual specialization (man the hunter and woman the gatherer), several important seasonal activities demonstrate interesting forms of cooperation...." (Fienup-Riordan 1983, 264). The indigenous scholars I have studied with emphasize resilience and success based

on indigenous agency. Dr. X'unei Lance Twitchell (Tlingit, Haida, and Yup'ik) first taught the course "Alaska Native Social Change" at the University of Alaska Southeast in spring 2012. His syllabus stated,

This course will examine what it takes to create social change from the perspective of Alaska Native culture and communities. We will examine qualities and conditions of Alaska Native people, and talk about things that need to occur in the immediate future in order to create a place where Alaska Native cultures, languages, and people are more likely to succeed, survive, and thrive. The methods used will be analysis of a collection of texts and current theories on decolonization, sovereignty & governance, and cultural revival. (Twitchell 2012).

I also studied Yup'ik 101 with Dr. Walkie Charles, and am currently researching Chilkat dyes with a group of Tlingit and Haida weavers. The emphasis in these learning environments has been about successful actions and practices that bring people, objects, animals, and non-human beings together into a continuously rebuilt and adjusting web of relationships. In this way, the research emphasizes why gut continues to be valued instead of emphasizing its loss. In Scammon Bay where gut is still processed in its full cultural context, the activities of women processing animals, preparing food, and making gut is part of joyous subsistence activity. This subsistence activity includes the male gender as a complementary partner, as the men usually hunt the animals. In the past, gut raincoats would have been worn by men, women, and children alike during subsistence activities.

While practice and gender frameworks demonstrate the ongoing anthropological interest in group human behavior animated by Bourdieu's practice theory, the emphasis on humans as agents neglects animals and objects as equal agents. Bruno Latour's Actor-Network theory explicitly allows the inclusion of animals and objects in the network, as does *Angayuqaq* Oscar

Kawagley's tetrahedral metaphor (Kawagley 2006) and Theresa *Arevgaq* John's *Ellarpak* paradigm (John 2009). John states,

My *Ellarpak* organic circular diagram is multi-layered, multi-dimensional, and shows overlapping of the creator, the universe, and the human and non-human. The key conceptual theoretical framework of my diagram is the essence of the unified sense of core elements, interconnectedness, interrelationship, and transparency, allowing multi-dynamic shifting of the layered elements. (John 2010, 16–17).

In the next section, additional frameworks are explored for the animal and object aspects of the network.

3.3 Animal Agents Theorized Through Personhood and The Gift

Turning to animal relationships in the network, my dissertation accepts the potential for animals to participate in the network as actors with agency. Recent anthropological ideas about animals, agency, and personhood can be traced back to Irving Hallowell's influential 1960 article "Ojibwa Ontology, Behavior and Worldview," and are further explored by Robert Brightman (1993), Nurit Bird-David (1999), Barbara Noske (1993 and 1997), Kristin Armstrong Oma (2010), Paul Nadasdy (2007), Erica Hill (2011 and 2018), Laugrand and Oosten (2015) and others. Agency does not necessarily guarantee personhood. Hill helpfully described the distinction between personhood and agency: "Mere action denoted agency; action tempered by social rules defined persons... while both agents and persons could *act*, only persons could *interact*" (Hill 2018, 43 emphasis original). Published reports indicate cultures of the circumpolar north widely accept animal personhood in ways that support inclusion of animals in the network. Examples include Barbara Bodenhorn's (gendered) study of Iñupiaq ≠ whale relationships (Bodenhorn 1988 and 1990), Ann Fienup-Riordan's work on Yup'ik ≠ bird relationships (Fienup-Riordan 1990 and

1999b), Rane Willerslev's study of Siberian Yukagir

elk⁴ relationships (Willerslev 2004 and 2007), and Josh Wisniewski's 2010 dissertation on Iñupiaq

bearded seal relationships.

Common to these studies of hunting relationships and animal personhood is the idea that animals choose to give themselves to the hunter, as part of an ongoing cyclical relationship, an idea that can be theorized through Marcel Mauss.

3.3.1 Marcel Mauss

Anthropologists have frequently returned to Marcel Mauss and the idea of "the gift" to explain reciprocal relationships. His book *The Gift: the Form and Reason for Exchange in Archaic Societies* was published in French in 1925 but poorly known to English-speaking audiences before its English translations in 1954 and 1990. This text explored ideas of obligation, giving, and reciprocity in the power of an object to demand repayment, a specific and detailed exploration of one element of social solidarity. When Mauss addressed the idea of obligation in the gift, he was looking at an object not as a commodity but as a way to establish relationships between people. A gift, whether action or object, puts in motion one or more of three obligations: the obligation to give, the obligation to receive, and/or the obligation to reciprocate. The asymmetry, imbalance, and ongoing debt between parties are the stuff of relationships and a bond that can connect persons beyond kinship. Mauss' characterization of the meaning of gifts continues to yield insights for practice theory. The time lapse between the steps of the obligation to reciprocate is crucial. Repayment too soon suggests a desire to be free of the obligation and thus the relationship, while a lag in repayment suggests disrespect and a neglect of the

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⁴ Willerslev's "elk" are the Asian equivalent of the North American moose. Broz and Willerslev, "When Good Luck is Bad Fortune", 75.

relationship. The subtitle of Mauss' book, *The Form and Reason for Exchange in Archaic Societies*, suggests that this mechanism is a thing of the past, when in fact it continues to exist side-by-side with terminal transaction-like exchanges in contemporary capitalist life. The concept of being "gifted" likewise sparks reflections on individual agency. A hunter or artist who is said to be "gifted" is not only talented or skilled, they are the recipients of a *gift* that comes from outside themselves and embeds them in a system of relations that makes that remarkable ability possible.

Another key Maussian idea relevant to practice theory is "Techniques of the Body" (1973) [1934]). It is from here that Bourdieu borrows the idea of *habitus* and refashions it into a central principle of practice theory. Mauss introduces habitus: "These 'habits' do not vary just with individuals and their imitations; they vary especially between societies, educations, properties and fashions, types of prestige" (1973, 458). He presents a triple consideration for habitus: "physico-psycho-sociological assemblages" with a biological component (such as sex or age), a psychological element (taking into account the mind of the individual, but not yet talking about agency), and the social (through imitation of the actions of others). These considerations are, "... assembled for the individual not by himself alone but by all his education, by the whole society to which he belongs, in the place he occupies" (1973, 462). Mauss does not elaborate how the three elements interact, as later practice theorists do, by inserting concepts of the dialectic or network. But he does insist that these unique cultural techniques are effective and traditional (traditional for Mauss meaning learned and transmitted). Perhaps most importantly, he situates these in the body of the individual: "...man's first and most natural technical object, and at the same time his first technical means, is his body" (1973, 461). Mauss intends these ideas to

pertain to humans, but in this dissertation I apply them to any agent in the network. Helpfully, Nadasdy gives us an idea how to incorporate animals in his 2007 article, "The Gift in the Animal: the Ontology of Hunting and Human-Animal Sociality."

Yup'ik scholar Theresa *Arevgaq* John describes a bodily, non-verbal concept of knowing that suggests a theory combining animal personhood, practice, and a relational network is a legitimate avenue for anthropological inquiry:

Elpengqellriit in Yup'ik epistemology are humans and nonhumans that have shared senses. These include the acquired senses of the mind and feelings, as well as sight, sound, and smell. The shared senses are evidence that there is indeed an understanding and a relationship between realms of existence and that all beings have the capacity to interact, associate, and resolve conflicts. (John 2009, 60).

Perhaps the most compelling reason the gift is an appropriate theoretical framework for this research project is the fact that it is itself inspired by indigenous epistemology. While Mauss also explores the ancient pre-monetary exchanges of non-indigenous Scandanavian, Indian, Chinese, and Germanic civilizations, some of the most useful passages of his text describe exchange in Western Alaska, Polynesia, Melanesia, and the American Northwest Coast. The indigenous sources he investigates incorporate a sense of spirituality, which becomes important in my analysis in chapter 6. In particular, my theoretical focus on the gift draws from the Māori concept of *hau*, as described by Māori intellectual Tamati Ranapiri in a letter to anthropologist Elsdon Best (1909). Both Best and Mauss quote Ranapiri from this letter. Today, Māori scholar Georgina Stewart criticizes the way Mauss "failed to account for the personified Māori cosmos" and how Mauss neglects "kinship relationships between humans, gods, and non-human aspects of the natural world" (2017, 8). In leaving out these other persons, Mauss misses the richness of

the full network: the hau of the gift (as a spiritual force or memory of previous relationships and predictor future ones) circulates not just among humans, but also animals and the forest itself. Stewart pointedly notes, "The 'hau of the gift' is a clear example of Eurocentric appropriation of indigenous knowledge: a concept extracted by social science from its authentic cultural context and re-inscribed within the Western discourses of the modern academy." (2017, 1)⁵.

In 2011, a new open-access journal was established with the name HAU: Journal of Ethnographic Theory. It criticized "top-down" theoretical approaches rooted in Eurocentric philosophical traditions in favor of "bottom-up" materialist approaches, encouraging anthropologists to embrace a legacy of "natural philosophies" revealed by material practices observed through ethnographic fieldwork (DaCol and Graebner 2011). The circulation of hau is complementary to concepts of translation and practice as ways to explain how the network is perpetuated.

3.4 Object Agents Theorized Through Materiality And Biography

When anthropology last engaged intensively with material culture, objects were used as markers for EuroAmerican ideas about cultural superiority, progress, and civilization. In the late 20th century, ideas about structure and agency gave rise to new possibilities. The idea that objects could have agency opened a fresh avenue for anthropological consideration of material culture beyond its old application as a proxy in outdated cultural evolutionary approaches. The concept of agency allows for a back-and-forth exchange among agents and co-construction of an overall

⁵ See also Zoe Todd's 2016 critique "An Indigenous Feminist's Take on the Ontological Turn: 'Ontology' Is Just Another Word for Colonialism." Journal of Historical Sociology 29 (1): 4–22.

system. Object agency has been explored in the literature on materiality championed by Tim Ingold (2000, 2010, 2013), Daniel Miller (2005, 2007, 2010, 2012), and Christopher Tilley (2004, 2007). Alfred Gell (1998) asserted that objects are only an index of agency. Howard Morphy (2010) thinks it was not important if objects have agency or not, but rather how and why people come to think objects might have agency. Ian Hodder (2012) prefers the term "entanglement" to avoid the idea that objects have agency, but to look at how things depend on people as well as people depending on things. Discussion of agency moves beyond the idea that objects are mere passive markers of some aspect of human-to-human relations, or an encoded message about how humans think but active players in co-constructive influence. The word "materiality" is widely used in anthropology to suggest objects make people as much as people make things.

3.4.1 Alfred Gell

To identify what objects are recruited into the network and how they interact there, the most useful framework can be found in the *art nexus* of Alfred Gell from his influential 1998 book *Agency in Art* (figure 4). The concept of the art nexus requires some careful reading. A mental visualization of key examples for each intersection on his chart is helpful. Agency is at the heart of the art nexus. Gell's theory is encapsulated in this statement: "social relations in the vicinity of objects mediating social agency." Along each axis of Gell's art nexus are four kinds of entities that have agency and interact with each other. One axis is the "agent," or entity giving something, and the other axis (called "patient") is receiving it, creating a relationship. These can go back and forth. The agent and patient both can take the following forms:

- 1. Artist: the person who creates the object that functions as an artwork (called the index).
- 2. *Index*: the artwork itself, which has the power to act on behalf of a person.
- 3. *Prototype*: the person (not the artist) whose agency is represented visually in the artwork.
- 4. *Recipient*: the viewer or user of the artwork. (Agency is exerted upon this person, or this person can exert their own agency through the index).

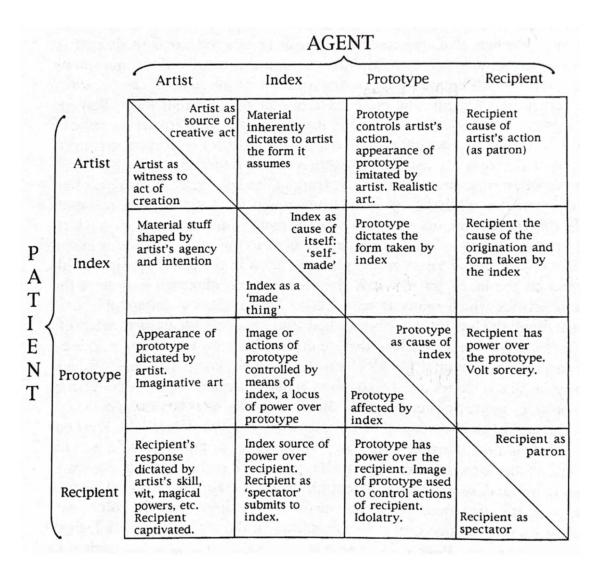


Figure 4: The Art Nexus. Alfred Gell, *Art and Agency: An Anthropological Theory* (Oxford: Oxford University Press 1998), 29, Table 1.

Because events (as opposed to "happenings") are caused by an act of will or intention, the index does not have its own agency but carries the agency of a person (the artist or the prototype) through abduction, a kind of semiotic inference that can avoid problems of language. Gell takes pains to assert that art is not language-like. Non-verbal knowledge is a key aspect of how the theory works. Related to the idea of abduction is the idea of "distributed personhood," a concept Gell borrows from Marilyn Strathern (1988). In this way, Gell considers an object to be the extension of a person, and thus a component of their identity, "objective embodiments of the power or capacity to will their use" (1998, 21). This secondary agency of objects is what gives Gell's theory such utility in material culture studies. The object (index) is the pivot of the art nexus (figure 5). To explore ideas about the obsolescence and perpetuation of gut production in this dissertation, I explore whether gut is an agent, or merely an index connecting other agents, as Gell describes. I also ponder the similarity between objects carrying the agency of other entities and agents carrying hau, or the memory of relationships and obligations that circulates with gifts. In particular, Mauss mentions, "... to accept something from somebody is to accept some part of his spiritual essence, of his soul" (1990, 12).

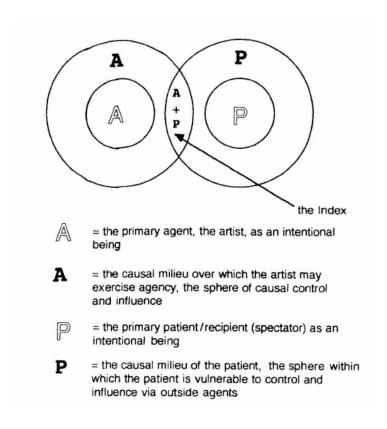


Figure 5: The position of the index in Gell's Art Nexus. Alfred Gell, *Art and Agency: An Anthropological Theory* (Oxford: Oxford University Press 1998), 38, fig. 3.8.1/1.

While the theoretical orientation here is dedicated to a network approach, linear concepts about object permutations over time have potential explanatory value (Appadurai 1986; Dobres 1999; Gosden 1999 and 2005; Hoskins 1998; Kopytoff 1986; Leroi-Gourhan 1993; Lincoln 2011). The trajectory of a material from its origin in a living animal through hunting, butchering, processing, manufacture, and use involves knowledge acquired through the hands, observed with the eyes, and (sometimes) transmitted through words. The network and the process do not have to be in opposition. Each step in the process is embedded in a network of relationships. The term "biography" as introduced by Kopytoff (1986) is appealing because it inherently suggests agency and the possibility of human-like attributes for objects. Extending backwards in time from an

object (such as a raincoat made from intestine) is the sequence of steps and necessary skills required to bring it into being. Extending forward in time are the iterations of the object during its useful lifespan. For the gut raincoat, for example, that might include wearing it in a kayak, selling it to a collector, and exhibition in a museum. Each of these steps is a snapshot in time, with the object always embedded in a network. Pausing in time at the moment of gut production, in between animal and artifact, allows us to look thoughtfully in many directions.

3.5 Agents in the Network and Relational Ontology

In order for the relationships between agents in a network to be explanatory instead of merely descriptive, consideration of the ontological turn is helpful. Sylvie Poirier offers this explanation:

Ontology refers to the nature of reality, to the nature of things (persons and objects) and to the nature of their relations as conceived, lived, experienced, and acted upon by the world's social agents. The ontological turn allows us to investigate not so much the diversity of worldviews, -- that is, the varying representations of the same world – but the multiplicity of worlds. (Poirier 2013, 53).

I will incorporate the "Mode of Identifications" proposed by Philippe Descola (2013 and 2014) for its synergies with the French social theory emphasized in this chapter, although Eduardo Viveiros de Castro (1998 and 2014) and Eduardo Kohn (2013) have also generated influential ideas about indigenous relational ontology. Descola uses the term "identification" to define the differences and continuities between a self and another being, established via analogies and contrasts. He uses the term "relationships" to define the rules and norms that govern interactions between beings. These criteria establish a grid (figure 6) with a spectrum of interiority (qualifying as a "being" in the sense of having the capacity for intention) on one axis and degree

of physical similarity or dissimilarity on the other. Through this framework Descola proposes four ontologies:

- 1. Animism: similar interiorities but different physically.
- 2. Naturalism: interiority differs but similar physically.
- 3. *Totemism*: interiority and physicality both similar.
- 4. Analogism: both interiority and physicality differ.

		INTERIORITY (Mental States)	
		similar	differ
CALITY	similar	TOTEMISM	NATURALISM
Processes)		Indigenous Australia	Euro-America
PHYSICALIT	differ	ANIMISM	ANALOGISM
(Material Proce		Indigenous N. America	China

Figure 6: Modes of Identification with Descola's examples italicized. Adapted from Philippe Descola, *Beyond Nature and Culture* (Chicago: University of Chicago Press 2013), Diagram by Ellen Carrlee.

Descola considers the question, are humans similar or not similar to non-humans? He proposes two criteria: interiority and physicality. Are a human and a seal, for example, very alike or very different? A traditional Yup'ik approach would consider them very different physically but similar in terms of interiority (Descola calls this identification "animism"). The colonial mindset would consider a seal the opposite, similar physically in terms of mammalian attributes but with

a very different interiority (Descola calls this "naturalism"). The traditional Yup'ik cosmology attributes similar interiority to humans, animals, the weather, objects and other phenomena, while colonizers view them as very dissimilar. I suggest in this analysis that because of its past role in spiritual situations, gut is a special material that may serve to remind people of uncomfortable tensions inherent in the very different spiritual perspectives simultaneously present in Yup'ik life. In Scammon Bay, for example, members of several different European faiths (all based in different variations of naturalism) must get along in the same village or in the same family. But variations of naturalism must also co-exist with aspects of animism, which holds an opposing position on Descola's matrix. Animism helps make subsistence meaningful and successful. Variations of naturalism must co-exist with animism to some degree within each Yup'ik person. What does it mean to see a high degree of interiority among all things? Would that not also mean a Yup'ik person would try to see a common interiority with outsiders who happened to subscribe to naturalism? With this line of thinking, I apply Descola to make sense of certain observations in my fieldwork.

The historical record indicates Yup'ik people, their material culture, and the marine mammals of Western Alaska are agents connected in networks of relationships. These networks are perpetuated by actions such as gifting, practice, and translation. Investigation of gender, materiality, the gift, animal personhood, and object biography in a "network of practice" will help to identify key changes in the model over time. Specifically, I will explore how a raw material like gut could be a meaningful agent to help explain social relationships and cultural identity. My dissertation is intended as a pilot project to develop innovative anthropological and community-connected approaches to material culture studies in Alaska. As such, a rigorous

examination of the theoretical underpinnings of the research is vitally important. Disclosure and analysis of theoretical assumptions is *not* a strong component of research in other material culture fields, including art history, ethnohistory, conservation, and museum studies. Being explicit about theory establishes the bias, worldviews, and belief system of the researcher, and is thus crucial for transparency, honesty, and integrity. Part of the analysis of this paper examines which components of the mixed theoretical approach proposed above were most useful and belong in future material culture research projects.

3.6 Methodology to Investigate Networks and Agents

Actor-Network Theory lends itself to a methodological approach of identifying agents and attempting to see their interactions in a network. Part of my methodology was the cultivation of my own network of relationships. The methodological keystone to this project was participant-observation of gut processing in a village where seals have been part of a network of practice for many generations. In the spring of 2019, I was fortunate to experience this three times in Scammon Bay, a Yup'ik village in western Alaska. In the years leading up to this opportunity, I developed skills and insights needed to maximize my productivity in that situation by seeking out situations where gut was part of activity-based learning exchanges. These events included gut processing, gut sewing, and the repair of a gut raincoat. In these situations, I looked for clues about relationships among people, objects, and animals. I also sought to put myself in the vicinity of Native people to observe what I could about relationships, how I ought to behave, and to share my preliminary research.

3.7 Object Agents: Raincoat, Gut-making, Foods

3.7.1 The Imarnin as an Object of Shared Interest

One of my initial research strategies was to bring artifacts to the village for discussion. As a museum professional, I found the presence of material culture in the museum setting stimulates discussion, often tangential to the particular object, but sparking memories, ideas, values, and stories. In this way, I expected the agency of an artifact in a village setting would make it an active participant in an immediate web of relationships in its vicinity, possibly including the people and animals involved in its making. To this end, I considered bringing museum artifacts to the field in the way that Yup'ik leader Andy Paukan of St. Marys, administrator Tim Troll, and museum curator Peter Corey brought Yup'ik masks from the Sheldon Jackson Museum to a Mountain Village festival in 1989 (Fienup-Riordan 1996) or the groundbreaking work done by Ann Fienup-Riordan and the Calista Elders Council bringing Yup'ik masks to Toksook Bay in 1996 (Fienup-Riordan 1996 and 1999a). Other anthropological projects took Yup'ik Elders to Berlin to discuss artifacts (Fienup-Riordan 1997) and Iñupiag Elders to the British Museum to review collections (Lincoln 2011). My own experiences at the National Museum of the American Indian and the Alaska State Museum indicated that discussion over artifacts could be fruitful. However, museum work must balance the often-competing needs of preservation versus access, and the ambiguities of my dual roles as a museum conservator and a doctoral student meant my special access to museum collections could also seem to put collections at risk, appear as a conflict-of-interest, or worse...using public resources (Alaska State Museum collections) for private gain (my own education). A resolution came when an *imarnin* (gut raincoat) of Yup'ik design came up for auction in Fairbanks. My planned methodology included the collaborative examination the *imarnin* in the hope of developing its biography. In treating the raincoat as a

person, I hoped to conceptualize what role an object might play in the web of relationships I was trying to study. Collaborating over a museum-like object was within my skills as a museum professional.

I had grand ambitions for the *imarnin*. I imagined developing a diary describing its construction and condition details and then bringing it into the field to discuss with Yup'ik hunters, artists, skin sewers, Elders, and community members. I hoped for an object biography along the lines of Kopytoff (1986). Would the *imarnin* have its own agency or was it merely a proxy or an index as Gell suggested? In anticipation, I carefully dampened and unfolded the crumpled raincoat at home. After the raincoat was nearly dry, but still pliable, I rolled it up in the style I had seen for Yup'ik raincoats in the museum, tied it gently with a strip of cloth and put it in a plastic shoebox for protection during travel. I brought tiny misting bottles for re-humidifying to render the *imarnin* flexible when needed, and thought I was well-prepared to execute this facet of my methodology.

3.7.2 Intestine Processing and the Merits of "Making It"

By incorporating hands-on gut processing as part of my methodology, I explicitly sought to include gut as an agent as well as prepare myself for village fieldwork. A symposium at the 2003 Alaska Anthropological Association conference and the resulting 2004 issue of the Alaska Journal of Anthropology explored the question of "Making It" as part of anthropological practice in Alaska. While taxonomic and hobbyist essentialism and "artifaking" remain risks of hands-on approaches, the benefits of bodily material engagement alongside Native practitioners is significant, "... creating occasion for open-ended social interaction" (Blackman and Lee 2004, 4).

Chase Hensel credited his attempts at making *uluct*, ladles, and ivory ear hooks as opportunities to understand culturally-oriented teaching and learning processes (Hensel 2004). Margaret Blackman cherished her efforts to learn mask making for the opportunity to enhance the friendship she was building with her collaborator. Blackman stated, "...sewing is both a social activity and a social leveler. The professor morphs into the inept, struggling student, the native artist into the confident and caring teacher" (Blackman 2004, 15). In addition to her helpful insights on methodology, Blackman's analysis helps connect the artifact to the animal. Just as Bodenhorn and Frink establish that "hunting" extends beyond killing and into processing, Blackman indicates the process of making things extends back to animals themselves.

Hands-on participatory research conducted with cultural experts has been the basis of the "Material Traditions" program conducted by the Anchorage Museum and Smithsonian Arctic Studies Center since 2012. Artist-in-residencies in Anchorage paired with community-based workshops have thus far explored fish skin, porcupine quill, walrus ivory, gut, moose hide, cedar wood, cedar bark, and grass. This program has produced a video series as well as numerous reports and presentations (e.g. Biddison and Shaginoff 2018; Crowell 2013; Crowell and Biddison 2018; Owens, Isaak, and Shah 2019) but the design and impacts of the program have yet to be analyzed through an anthropological lens. I was fortunate to join the workshop portions for the gut and cedar wood units.

Between 2014 and 2019, I participated in the processing of intestine from nine individual animals: two brown bears, a bearded seal, a harbor seal, two beluga whales, a hog, a Sitka blacktailed deer, and a coyote. With the exception of the deer, all the processing took place with

Alaska Native practitioners: Alutiiq/Sugpiaq artists Sven Haakanson Jr., and Coral Chernoff for the bears, harbor seal, hog and coyote at the Burke Museum; and Darlene Ulak, Mary Kaganak, Annie Don, and Alice Rivers in Scammon Bay. I also had limited opportunity to try sewing gut with Sven and Coral, as well as attend a gut sewing class taught by Yup'ik expert Mary Tunuchuk.

3.7.3 Yup'ik Foods

At the end of the 2019 Cama-i festival, I was able to attend a Native food potluck at the Catholic church, an event in remembrance of people who died the previous year. I was thrilled to eat Native foods, and mistakenly thought it might be my only chance. Little did I know we would eat subsistence foods almost exclusively in the villages, and my enthusiasm and stomach for them would be a bonus for connecting with people. When we traveled, people might nervously ask, "What does she eat?" and my Yup'ik collaborator would respond confidently, "She eats whatever I eat." It seems my German/Irish Wisconsin childhood eating blood sausage, chicken giblets, smoked chub fish, and marrow bones came in handy. Likewise my eagerness to physically engage with animal substances, smells, textures, and sensations without finding them repulsive or disgusting was an unanticipated strength.

In Scammon Bay, where fresh gut was eaten when harvested from whales and seals, gut as a food could be seen as having agency. I argue the deliciousness of organ meat in combination with a cultural value not to waste (partly in order to ensure future hunting success) influences ongoing production of gut as a material that could be subsequently made into objects. This will be explained further in chapter four.

3.8 Animal Agents

It was challenging to prepare a methodology to assess animals as agents in the network, as museum and academic fields yield little opportunity for interaction with animals. Seals, whales, and bears were the main animals whose inner organs I investigated in this project. Anthropological examples throughout the circumpolar north are replete with examples of animal agency. Rane Willerslev's research into Yukaghir moose hunters in Siberia suggests hunting is an important context for observing animal agency during fieldwork. He states, "...it is within situations of actual, perceptual engagement with prey that non-human entities are experienced as persons" (Willerslev 2007,117). Josh Wisniewski's dissertation research about Iñupiaq/ bearded seal relationships in Shishmaref afforded him several opportunities to participate in the hunt, and he stated, "Hunters from Shishmaref treat animals as sentient beings who are aware of and responsive to their actions and intentions..." (Wisniewski 2010, 106). Given that men are more frequently hunters than women, I possess no hunting skills, and I had limited opportunity for fieldwork, direct observation of hunting would not be part of my methodology. But evidence of agency and animal participation in a network of relationships could be observed in other ways. Barbara Bodenhorn's 1990 article, "'I'm Not the Great Hunter, My Wife Is': Iñupiat and Anthropological Models of Gender" asserted interrelated activities of both genders are necessary to please whales and insure successful subsistence harvest. Bodenhorn emphasizes, "...the important point is that women's activities — sewing, butchering, sharing — are classed by Iñupiat as hunting skills. The anthropological model begins with an unexamined definition of hunting: seeking out and killing animals by means of material technology. Iñupiat definitions clearly extend well beyond the physical act of slaughter" (Bodenhorn 1990, 45). Frink observed treatment of a seal in Chevak in 2003: "Before the butchering process began, the grandmother

used her sharp ulu to cut the forehead of the seal. This ritual observance freed the spirit, and pleasing fresh water was placed under the seal fins" (Frink 2005, 95). Without direct interaction with living animals themselves, my project methodology sought evidence of human interpretations of animal agency such as these. Participant-observation of butchering, processing, sharing, and food-related behaviors were documented through photographs and notes. If special actions were taken, such as giving the seal a drink of water or treating the animals' parts in respectful ways, this was analyzed with animal agency in mind. Non-verbal actions were observed both during museum-based events involving bears and seals as well as the events involving seals and whales in Scammon Bay.

Evidence of animals as agents was also investigated through the words and terms used to describe them during interviews and conversations. In order to stimulate discussion of animals as agents, I hoped to use the *imarnin* to spark reflections about the animals who both gave the intestine and who were hunted while wearing it. I also hoped to use stories about animals as a way to gauge current views of animal personhood. I intended to use the story of "The Boy Who Lived with the Seals" as the entry point to conversations that might include accounts of animals living in social arrangements that parallel the human world, animals having awareness and intention, or animals having souls. This story has been published many times from sources widespread along the coast (e.g., Andrew 2008, 420–437; Curtis 1930, 79–80; Fienup-Riordan 2000, 58–81; Rearden and Fienup-Riordan, 2014, 202–227). I also intended to encourage stories and discussion about birds, since several published accounts indicated not only sentience of birds (Andrew 2008; Fienup-Riordan 1996 and 1999b; Lantis 1947, Pratt 1993) but special relationships between birds and seals (Fienup-Riordan 1990, Sonne and Rasmussen 1988).

3.9 Human Agents in Various Fields of Practice

In order to conduct fieldwork in a village setting, local connections were necessary but lacking in the early stages of the research. Building those connections began with my own existing networks associated with my institutionalized cultural capital. By cultivating relationships in my academic and museum networks, making efforts to be a part of actions taking place in Native spaces, and sharing my project with others, a village network of gut production eventually intersected with my own.

3.9.1 Agents in Institutions

The semester I began my doctoral studies on campus in Fairbanks I took Central Yup'ik Eskimo 101, a language course taught by Dr. Walkie Charles, a Yup'ik scholar and educator from the village of Emmonak. One semester did not teach me the language, but it sensitized me to the importance of language and I was able to spend an hour each day surrounded by Yup'ik people. Each student was expected to use their Yup'ik name. They were told, "If you don't know it, go home tonight and call your mom. Call your auntie. Find out." As a non-Native, I was asked for my birthdate and assigned a name based on something significant that happened on that date. Dr. Charles assigned me the name of his deceased brother, because he had learned of his death on the day that I was born. Lessons emphasized respect for Elders, humor, being genuine, and taking action to learn the language. Students were encouraged to telephone relatives and ask for pronunciation and word use guidance. Manners and etiquette were part of course expectations. For example, latecomers to class were expected to stand silently at the door until they were recognized and invited to sit (aqumluten! "park it!"). I became friends with the only other middle-aged woman in the class, a Yup'ik woman who spoke the language fluently but could not

yet read and write Yugtun. Through her, I began to become aware that many Yup'ik people do not ask questions directly. Her ways of asking to join me on a shopping trip to Fred Meyer or asking me to proofread a paper for another class were so subtle that it sometimes took me several days to recognize the request. I was lucky that Yup'ik 101 met daily and she was persistent in her hinting.

My early fieldwork efforts to learn about gut technology worked my own existing networks of museum relationships and gave me a foundation of hands-on experience that proved valuable in my village fieldwork. One of these connections was Dr. Sven Haakanson Jr., an Alutiiq/Sugpiaq artist, anthropologist, and curator from Old Harbor on Kodiak Island. Our friendship and collegial discussions extended back to our first meeting at a museum conference in 2008, during his days as the director of the Alutiiq Museum. Sven had been experimenting with gut since he was 16 years old. The brutality of colonial experience had severed the transmission of knowledge about gut-processing technology on Kodiak Island, and he was working to reestablish it. In 2011, he introduced me to Alutiiq/Tutchone artist Coral Chernoff. When he dropped me at her studio, he exchanged a roll of bearded seal intestine made by Yup'ik Elder Martina John of Toksook Bay for one of Coral's expertly handmade sea otter hats.

Another museum connection was a cold-call to the Yupiit Piciryarait Museum in Bethel during my first visit to the Cama-i cultural festival in 2013. This began a warm and wonderful friendship with Cup'ig museum curator Eva Malvich. Eva toured me and my young son around Bethel, and we would sit and chat as he explored all the playgrounds in town. Eva advocated for my attendance at a 2015 workshop at her museum set up by the Smithsonian's Arctic Studies

Center and their Material Traditions initiative (Owens, Isaak, and Shah 2019). This class was a gut sewing workshop taught by Mary Tunuchuk from Chefornak. With Eva's support, I begged my way into the class, promising to bring food and snacks the grant did not have funding to provide. I also promised to write up my notes and send them to the Materials Traditions project to aid in their development of educational resources. In this class, I noted the importance of nonverbal learning and began to see the value of food gifts. Through conversation with class participants about the Material Traditions events in Anchorage, I also came to understand there had been some confusion about expertise and process when three experts from different cultures were co-presenters. Also, the lack of freshness of the gut in the Anchorage class was upsetting to the practitioners. These were some early insights into importance of *field* for understanding the cultural context of gut processing and use.

A third museum connection arose when Cordova Museum curator Denis Keough needed a gut raincoat repaired for exhibition. Together, we developed a collaborative workshop with Elaine Kingeekuk, a skin sewing expert from St. Lawrence Island, to take place during a museum conference. Elaine had worked with museums before, and did her best to bring cultural context into the event, as described in chapter four.

3.9.2 Agents at Native Events

Part of my methodology was to attend Native public events whenever the opportunity arose. This helped confirm the scarcity of gut in the art market. In 2012, I met up with Sven at the Alaska Federation of Natives conference in Anchorage. There, he purchased a roll of gut from Cup'ik Elder Nancy Edwards of Mekoryuk. Later Sven would provide it to an Alutiiq artist for the

creation of pictographs I later saw for sale in museum gift shops. Although the artist market at AFN is one of the biggest markets for Alaska Native arts, there were only five examples of gut in 2012:

- 1. A single roll of processed bearded seal gut sold by Nancy Edwards of Mekoryuk.
- 2. Several small rolls of dyed bearded seal gut made by Martina John of Toksook Bay.
- 3. A gut sewing basket made by St. Lawrence Island Yupik skin sewer Elaine Kingeekuk of Savoonga.
- 4. Several pairs of earrings by Iñupiaq/Athabascan artist Sonia Kelliher-Combs of Nome and Anchorage.
- 5. Beaded vases made of moose organ tissues by Selina Alexander, Koyukon Athabascan artist from Huslia.

During AFN introductory events and the eight hours of performance during the Quyana dance events that were held over two evenings, I had the opportunity to observe dance groups from across Alaska. Cultural groups represented included Ahtna, Alutiiq/Sugpiaq, Cup'ik, Iñupiaq, Tanana, Tlingit, Tsimshian, Unangan, and Yup'ik performers. While all the groups incorporated drums, I saw no drums that were clearly made from animal viscera. All were made from conventional leather or synthetic materials. I also observed nothing in the regalia of any culture that I could identify from my museum and art conservation background as being made from gut.

I attended the Cama-i cultural festival in Bethel in 2013, 2015, and 2019 where I was likewise able to observe both dance performances and the arts and crafts market. In 2013 there was a single roll of gut for sale. In 2015 I saw three rolls of gut from a single vendor. I did not buy the

gut either time because I did not want to interrupt the flow of the material to whatever cultural purpose it might have. In both cases the gut sold quickly. In 2015, the Iñupiaq King Island dance group had drums made of marine mammal viscera. Two were made from the membrane around the bowhead whale liver, and two were made from walrus stomach. This was unusual, as drums heads at most performances I observed have been synthetic. A separate classroom-based demonstration and interpretation of the artistic process and meaning of their regalia and dance equipment merited inclusion in the festival program as a special event. In 2019, there were no rolls of gut available or anything made from gut at the Cama-i art market. I was unable to observe enough dancing to comment on the absence of gut among the performers in 2019. The scarcity of objects made of gut for sale or as dance regalia made it difficult to observe examples of gut objects as agents in current webs of relationships at these Native festivals.

3.9.3 Key Agent: My Collaborator

For my village fieldwork, I am reminded of the article "First, the Caribou" by Margaret B. Blackman (2004). In the article, Blackman travels to an Iñupiaq village to study a mask style common in the art market and is told, "First, you gotta get a caribou..." Just as understanding the caribou skin mask started with knowing how to get a caribou, my research needed a key starting element: a collaborator who could chaperone me to a village. It is possible to attend the Cama-i Festival as a complete outsider, staying in hotels, eating at restaurants, calling cabs, and buying a ticket to watch the dancing. But to visit most villages in Yup'ik country, the logistics and access are very different. It is expected that outsiders contact some entity of village leadership before planning a visit to a community, not only because it is rude and arrogant to show up unannounced, but because the infrastructure of a village cannot easily accommodate a tourist.

How will you get from the airstrip to town? Where will you sleep? What will you eat? What if you blunder about and violate people's privacy? Sometimes an anthropologist will cold call the Traditional Council or the Village Council, describe their research, and seek formal permission to visit. This allows the leaders of the community time to find lodging (often in the school, perhaps sleeping with a sleeping bag in the gym or library) and to consider who might be willing to consult with the visitor. Unprepared visitors who are not self-sufficient or who are woefully ignorant are a burden for the community, and often there is little benefit for the locals. I was lucky to have a reasonable alternative.

Instead of "First, the caribou", first you find a strict and respected Yup'ik grandma. In my case, I was fortunate to be introduced to such a person, Annie Don, following the defense of my research proposal. We spoke on the phone several times, and she agreed to meet me at the 2019 Cama-i Festival in Bethel and then travel on together to some villages. For someone in my situation (recently widowed mother with a full-time job) this development was core to the most productive part of my fieldwork. She was an artist, a businesswoman, and had previously done fieldwork with an anthropologist. I referred to her as my collaborator, guide, or chaperone. After we arrived in Bethel, I surrendered most decisions to her: she decided where and when we traveled, where we stayed, what we ate, and who we spoke with. She also counseled how much sugar I should use, what time I should wash my hair, and when I should turn off my smartphone and go to sleep. Invariably, she was right. Because of her network of relationships, we were able to stay at private homes in each of the communities we visited. I benefitted greatly from my proximity to the generosity Native people lavished on her as an Elder, and I paid her for the work and travel she undertook on my behalf.

At the Cama-i festival, I spent most of my time at Annie's stall at the arts and crafts bazaar in the commons of the Bethel high school. Many people sought her out to say hello. She addressed nearly everyone in Yugtun and most people she spoke with knew the language. She is a distant relative of Yup'ik artist, dancer, and scholar Chuna McIntyre, who was one of the people to sit with her at her booth and chat with me at length about my project. Traveling with a Yup'ik-speaking collaborator but without fluency in the language myself offered a degree of confidentiality for people to converse freely in my presence, possibly about me but more likely regarding news in the villages or people I did not know. When Yup'ik speakers switched to English in my presence, I assumed it was reasonable for me to hear it. I also realized if my actions passed muster with Annie, I was probably not embarrassing myself.

When I finally traveled to Bethel with this research collaborator who would take me to the villages, Eva Malvich generously offered the use of her car while I was in town. This helped make me useful to Annie and promoted a sense that I was trustworthy and resourceful. Eva also had many good suggestions about Yup'ik etiquette and respectful behavior while I was in the villages. Annie Don took me to Toksook Bay, where we stayed with her relatives and met with numerous people. However, the weather was not conducive to hunting and after several days Annie decided we should visit her friend Darlene Ulak in Scammon Bay, who reported seal hunting was beginning there. Because of Annie's network of relationships, we were invited to stay at the Ulak home (figure 7).



Figure 7: Johnny and Darlene Ulak in their kitchen at Scammon Bay, Alaska, April 2019. Photo by Ellen Carrlee.

3.10 Conduct During Participant-Observation of Village Networks

Several references about fieldwork in Yup'ik country indicate asking questions is rude (i.e. Cusack McVeigh 2017; Fienup-Riordan 2001; Lee 2006b; Morrow 1996). There seem to be many reasons for this, and judicious questioning is a fieldwork skill I could spend a lifetime cultivating. My own training emphasizes asking questions as an important part of learning, and has been encouraged in the academic and professional settings I thrive in. How would I do my research if I could not ask questions? This is one of the key areas in which having a Yup'ik chaperone was crucial. After communicating my research question to Annie, I studied how she went about helping me. I gave over to her many decisions and choices, and tried to follow her

lead without questioning. We visited whom she chose, I ate whatever she ate, and I went about activities as she indicated. In surrendering control, I was often at loose ends, a little bit like a child (and certainly my knowledge and understanding level were comparable to a child's). I had to come up with things to occupy my hands and my mind...things that might make a good impression and encourage people to tell me illuminating things...things that would not elicit a gentle scolding from Yup'ik Grandma. I found the main things I should do were to imitate what Annie did, and at the same time hone my patient senses of perception and observation. If it was rude for me to ask questions, and if conversation around me was in a language I could not understand, how might I gather clues to the network of relationships? What could I deduce from watching, noticing, and paying attention? When people knew I was listening and resorted to English instead of Yup'ik, what did they talk about?

In this regard I took a cue from the work of Canadian activist and professor of Native Studies peter kulchyski, who recommends analyzing the language of gestures during fieldwork and establishes several protocols. While he is cautious of the risk of studying objects as a way totalizing a culture and seeking a romanticized pre-contact cultural purity, he advocates the idea of practice and the study of activity. He argues that cultural values are circulated through habits of practice that are often expressed as gestures which he describes as "writing with the body." The six "gestures" (not unlike Bourdieu's *bodily hexis*) he describes for his work in the Canadian Arctic were: 1) the facial yes and no, 2) the handshake, 3) the unannounced entrance, 4) the gift of food, 5) the kiss, and 6) the smile (kulchyski 2006). To extend these ideas into Western Alaska, Molly Lee's 2006 article "Flora and Me" provided rich descriptions of specific social situations in her fieldwork and gave examples of the kinds of opportunities and challenges I

might expect. During fieldwork, I thought of these sources often when I wanted to ask questions. Eventually I realized it is very difficult to predict if a question might be inappropriate. Once, while walking home from a woman's house, I mentioned to my collaborator that flooring in nearly every home we visited was a light brown or beige color, usually linoleum or vinyl, laid in large flat pieces with few seams and not much pattern. I was eager to chat about this, since I suspected it was related to processing animals, overflow dining on large flattened cardboard boxes on the floor during crowded events, and other activities that tended to happen on the kitchen floor of the main room. Certainly different color choices and patterns were available, so why consistently select beige? Annie's answer was abrupt: "No one asks questions like that. I would never ask her, and you shouldn't either." We walked a little more in silence. "Even if I knew I would not tell you" she added. I was stung a bit by the gentle scolding, but also a little relieved and excited...the questions-are-rude caution was not merely a matter of avoiding sensitive subjects. It was a matter of etiquette and cultural practice. It seemed judicious to relax and let go of the reflexive need to ask questions. In doing so, one tends to talk less and listen more. Eventually, in some situations, I was explicitly invited to ask questions.

My fieldwork methodology included continuously and consciously cultivating a positive mindset and choosing to be hopeful. Yup'ik Elders speak of the mind as powerful. I eliminated the word "gross" from my mind in regards to anything: food, personal appearance, bathroom facilities, bodily functions, or anything I observed. Instead, I willfully focused my attitude on thoughts of curiosity, gratitude, and calmness with active mental comparisons between unfamiliar things I saw and familiar things I found pleasing in my own life. Darlene Ulak would later compliment my willingness to learn and work eagerly. She praised me for not getting discouraged, bored, or

complaining about the work but "jumping right in." In the months following my visit, conversations with my Yup'ik contacts often included mention of how surprised and delighted they were that I enthusiastically ate their Native foods.

There were several facets of my preparation to adventure with Annie. I brought the *imarnin* for discussion, along with some Tyvek and sewing materials to keep my hands busy. I brought a voice recorder, a camera, and my smartphone in addition to notebooks and minor office supplies. I purchased food such as apples and nuts as gifts. I tried to prepare myself to behave respectfully. While I am agnostic, many Yup'ik people are devout churchgoers. When people in the village asked me about my faith, I responded that I was raised Catholic and attended Catholic grade school for eight years, but I am no longer practicing. Prior to my fieldwork, I reviewed the most common Catholic prayers of my childhood and made sure I could recite grace fluently in case it was said before meals or I found myself a participant-observer in a church setting. To some degree, I was able to rely on *habitus* learned from my own religious upbringing.

3.11 Documentation of a Village Network

Identification of networks and agents is not a routine topic of conversation. Nor is the process of how gut is made. These important topics of my study are largely non-verbal knowledge. Yet they need to become verbal for the purposes of a written dissertation. I was deliberate in how I documented my observations and alert to how people choose to show me the information I sought.

Several hours after our arrival in Scammon Bay, Darlene told her daughter, an 8th grader, to give me a tour of the village. She was an excellent and chatty young guide and I felt comfortable

asking her to describe what I saw during the village tour. This was similar to my experience touring around Bethel with Eva Malvich, who is close to my own age and welcomes direct questions. I took photographs of all the public buildings in Scammon Bay and some of the visible subsistence items during this tour. In general, I did not take many photographs of people during my visit. Local people were not commonly taking photos, and pulling out my phone to capture images felt invasive and seemed to put a priority on what things looked like rather than what they were about. In academic and museum situations, taking images often shows respectful and complete documentation. But it can also suggest that a mere photograph captures the important information. Often in the village I felt the evidence for networks of relationships and my research question about intestine-making was about meaning, not visual appearance. Most of the gut processing events I documented in Scammon Bay included my active participation, and handling an electronic device is not compatible with handling fresh animal tissues. I was lucky that Darlene's daughter was willing to use my camera to capture a few key steps of the beluga intestine processing while my hands were sticky.

There was a dance event called *curukaq* taking place at the high school when I first arrived in Scammon Bay. I later came to understand this was part of an old tradition known as the Messenger Feast. This event was one place it was normal for people to have their phones visible. People were texting each other, photographing the dancers, or even filming them with their phones. I stood on the perimeter, and typed observations into my phone at intervals. I took a few images for record-keeping purposes to remind myself what I had seen, but the complexities of seeking permission to use the images deterred me from taking many pictures or filming the dances.

I visited the home of Mary and Naaman Kaganak in Scammon Bay several times. Their house always had three generations of family members bustling about, and Mary cheerfully referred to the place as her "wild kingdom." Mary and Naaman both like to joke, and are quick to laugh. In these situations where a home was busy and there were many overlapping activities and conversations, a good methodology was to have a small notebook in the back pocket of my jeans. As I listened or observed, I would formulate key phrases or sentences in my mind. When everyone else was occupied and I had a quiet moment, I could jot a few words quickly in the notebook with the pen I kept in my hair, and then put the notebook back in my pocket. In this way, I could catch key ideas I would re-write more expansively in my spiral notebook at bedtime or when I was alone, and focus on participating at the Kaganak household while I was there. During three consecutive weeks in Yup'ik country, I filled two 80-page spiral notebooks with observations. I later transcribed these into a Microsoft Word document to make them keyword searchable.

The Covenant youth counselor was very helpful in clarifying my outside glimpse of Scammon Bay. Drew Williams is the Youth Pastor and Regional Program Facilitator for the organization Covenant Youth of Alaska. He doesn't know everyone in the village by name yet, but everyone knows him and his wife Holly who teaches at the school. There are only four non-Native Scammon Bay residents who live there year-round. The other two are also school teachers. Drew and Holly live in half of the duplex where the Ulak family lives. The first thing Drew cautioned me, "If you've been to ONE village in Western Alaska, you've been to ONE village." Each one is unique and distinct. He also applies an observation from one of his mentors: "What you see is

new to you, not new to anyone else. If you visit for a day, you could write a book. If you visit for a week, you could write five pages. If you visit for a year, you can't write anything."

In conclusion, I take Descola's articulation of worldviews seriously in my theoretical orientation and seek to integrate anthropological frameworks that resonate with Yup'ik worldview. Foremost, the idea of a web of relationships as seen in Actor-Network Theory is harmonious with the tetrahedral metaphor of Oscar Kawagley and the ellarpak and elpenggellriit described by Theresa John. Latour's insistence that actors (agents) could be non-human is in keeping with Yup'ik understandings of a sentient universe where animals, objects, spirits, the land, and the weather have agency. To prevent a sprawling network from becoming overwhelming, the construct of punctualization is used to section off important but tangential areas of the network, and Callon's Obligatory Passage Point is used to draw attention to specific agents in the network for closer analysis. My theoretical framework animates the relations among actors through dialectics, Bourdieu's practice theory, Callon's translation, and the Māori concept of hau (through the lens of the Maussian gift). Practice theory affords non-verbal ways to appreciate the contributions of non-human agents who do not use human language. It analyzes their agency through bodily engagement as habitus, which is subconscious and thus unverbalized. Practice theory also situates the actors in a field, another way to limit the scope of the network and examine it with a historically-informed context. The notion of field also helps animate the network with motivation, as actors are motivated to generate capital within the context of the field. Creation of capital helps explain the actions of human agents in the network, but the actions of other agents are most powerfully explained by the idea of the gift or hau. This widelyused anthropological framework (associated with Marcel Mauss but partially rooted in

indigenous concepts) helps explain the perpetuation of relationships among agents in the network through the circulation of gifts. Because the attribution of agency to non-humans is relatively new in anthropological theory, Alfred Gell's conception of the index to address object agency is included to help clarify actions involving objects and materials in the network. In my methodology, I identify key human and non-human agents and record their interrelations in various fields such as museums, Native events, and in the home and school contexts of a Yup'ik village. I use my own bodily engagement with gut processing to help understand gut as an agent and to position myself to observe the relationship Yup'ik people have with gut. This will be compared with historical documentation of past gut practices in the past and evidence of historical networks of relationships involving humans, animals, and objects.

Chapter 4: Findings About Networks and Agents

4.1 The Museum Network

Part of my early anthropological fieldwork happened in institutional settings, particularly as I built my skills in these contexts in order to maximize eventual data-gathering in a village context. The network of the museum is worth considering as a contrast to the village network. I built my skills and refined my research question within three museum "fields": the Burke Museum in Seattle, the Cordova Museum in Cordova, Alaska, and the Yupiit Piciryarait Museum in Bethel, Alaska.

4.1.1 The Burke Museum in Seattle

In 2014, Dr. Sven Haakanson, Jr. invited me to join him for a gut processing workshop at the Burke Museum in Seattle, where he is currently the curator of North American anthropology. The three-day workshop was my first hands-on experience with gut, and we made 75 feet of brown bear intestine as part of a pubic program. I diligently documented the process with photographs and notes. In 2016, I joined Sven in Seattle to process another bear intestine. This time, there were two other participants: Amy Tjiong and Coral Chernoff. Amy was an alumna of the same graduate program where I earned my master's degree. As a student in 2009, she initially sparked my own gut interest with a technology question I was unable to answer. This made me realize the degree to which museums and conservators poorly understand the material. In 2016, Amy was working on Siberian gut garments for the American Museum of Natural History, and had returned to a research question about so-called "winter-tanned gut." This variation is a satiny white material usually associated with non-waterproof ceremonial garments made by Siberian Yupik people. Her project was developing into a thesis that would allow Amy

to complete the Master's degree in anthropology she began before her conservation training. Sven Haakanson happened to be on her thesis committee. For this workshop, Sven also brought Coral Chernoff, a Kodiak artist he had introduced me to in 2011. I had noted at that time that Coral has exceptional knowledge in two areas.

First, Coral is an accomplished artist proficient in many media. Her skills are largely based on her own experimental research with materials and keen observations of artifacts she has seen personally (often at museums) or through photographs. When I first met her, she showed me a spruce root basket she had made and experimentally brain-tanned (in the way leather is sometimes tanned). There is no published precedent for "tanning" basketry materials in Alaska. She was actively using the basket treated with this innovative technique in order to assess its durability and wear. She was also testing purses she had made from different skins. There was a tidy butchered seal on a piece of cardboard on her kitchen floor, the narrow intestine inflated in beautiful curls on the counter, and the stomach in a plastic container where she was still experimenting with how to separate the tenacious and complicated layers of that organ. She showed me a sample of processed, dried harbor seal lung. I had never before or since seen or heard of dried lung for any application.

The second area of Coral's specialized knowledge involves the complexities of being an indigenous artist. The topic is beyond this paper, but my time with Coral cautioned me about my limitations and a dimension of relationships and challenges I had not considered. In her studio in 2011, I fumbled helplessly with fibers of sinew while she sat next to me on the couch, effortlessly twining the fibers into fine thread and describing the various ways a Native artist can

be caught between multiple unsatisfactory options. This was my first experience trying to learn indigenous technology from imitation alone, side-by-side with an expert, as well as my first critical conversation about cultural challenges to artists beyond economic and technical issues. I was humbled on many levels. Again in 2016, I was in awe of Coral's technical knowledge, but it was the dialog between her and Sven at the kitchen table of Sven's home that had the most profound impact. On issues of artistic knowledge and what should happen to that knowledge, they did not always agree. The network of relationships that engulfs an indigenous artist and culture-bearer is complex. Within the network are profound exchanges grounded in resilience and affirmation, but also tensions and wounds that should not be published, discussed, or betrayed by outsiders. Coral's field in Kodiak was still connected to relationships with the animal, while Sven's field in the museum and academic network put him in a position that appears to distance him from the hunters who took the animal. He also hunts himself, and encouraged the hunters to bring back the bear meat and intestines for the community to use. Even though Coral and Sven did not always agree, they did share a great many cultural values and respect each other...their commitment to a decades-old friendship and mutual respect meant they could continue this dialog for years to come. This experience impressed upon me a caution not to get in over my head in matters that were not mine to address, but also expanded my understanding of culture bearers as artists and community advocates who live in a complex world.

4.1.2 The Cordova Museum

In 2015, Denis Keogh, the curator at the Cordova Museum, asked for my conservation expertise in the treatment of a gut raincoat. With my gut research in mind and emerging trends in museum

ethics promoting participation of indigenous experts in the care of collections, I recommended consulting a Native skin sewer. I helped Denis design the collaboration as a workshop that would take place at the Museums Alaska conference in Cordova that year. Denis met St. Lawrence Island Yupik skin sewer Elaine Kingeekuk of Sayoonga, St. Lawrence Island, at a cultural event in Anchorage. Elaine had previously repaired a gut parka for the Smithsonian's National Museum of the American Indian. At the Cordova workshop, she repaired a bear gut raincoat made by an Alutiiq/Sugpiaq man named Fred Tedischoff, who once lived in the village of Tatitlek. After his death, the raincoat was donated to the Cordova Museum by his elderly daughter in the 1960s. The day of the workshop was September 29, 2015, the one-year anniversary of the death of Elaine's partner, an Iñupiaq man named Thomas Tungwenuk Jr... Elaine's connection with him was a recurrent topic throughout the workshop. Elaine's teachings during the workshop included songs and dances about Thomas, about walruses, about landscape, and about the behavior of teenage girls on St. Lawrence Island. Leona Olsen, a local Chugach Elder, was honored and recognized by Elaine the morning of the workshop. In the afternoon, Leona returned with Sylvia Allen, a relative of the raincoat's maker, Fred Tedischoff. They shared more information about Fred with the group. Leona announced it happened to be Sylvia's birthday that day. During morning introductions, Eva Malvich from the Yupiit Piciryarait Museum in Bethel had announced it was her own mother's 85th birthday (her mother Eula David is a Yup'ik Elder). Existing networks of relationships were revealed and shared, and new networks of relationships grew or were strengthened around the project (figure 8). This project demonstrated a network of relationships across Alaska that converged around a museum object. After I acquired a historic gut raincoat myself, I hoped something similar would arise around it, too.



Figure 8: Elaine Kingeekuk (on the right in the blue shirt) shows her repairs to Sylvia Allen (left) and Leona Olsen (center), September 2015. Photo by Ellen Carrlee.

In the "field" of the museum, no live animals are present. Museum objects such as gut raincoats have agency as "objectified cultural capital." Interactions with object agents promote the cultural capital of everyone present. For indigenous participants, the actions of creating, reviewing, and recognizing relationships with people was paramount. This included deceased people like Elaine's partner and the maker of the raincoat as well as those not present such as Eva's mother. In the museum field, we are missing many of the contexts that promote those person-to-person relationships. Those contexts include schools, kitchens, the ocean, local subsistence ecosystems,

and churches. We cannot easily see these working together in a museum or a university setting, yet my own institutionalized cultural capital made museums a starting point to develop a theory and methodology for investigating gut relationships.

4.1.3 The Yupiit Piciryarait Museum in Bethel

On my way home from fieldwork in 2019, I visited Eva's successor at the Yupiit Piciryarait Museum, director Benjamin Charles, who is also a mask carver. His masterful tour of the museum galleries underscored the importance of the spiritual dimension of gut, and reminded me that many indigenous artists hold specialized cultural and sometimes sacred information beyond the objects they create. His tour centered on spiritual themes connected to the symbol tattooed on his forearm. The symbol, called the *ellam iinga* or "eye of awareness," has a dot at the center surrounded by two concentric circles and a short straight line extending from each corner. When I asked him why seals are so important, Ben responded, "Because of the Seal Woman." He told me she is powerful and exists in many cultures: Sugpiaq, Iñupiaq, Canadian, Greenlanders...if there is an issue with shortage from the sea, she was somehow missing and not providing. The shaman would need to go look for her. He would put on a seal gut or fish skin parka, stand outside the *qasgiq* by himself, and transport his spirit to look for her, bring her back, and bring her power back. Ben was careful about the word "power." Several times he clarified that it is not about conflict, but spirit power to answer prayers and bring blessings. I asked if she was like Sedna? He tells me she is called Cena Arna...two words, "seal woman." Even though I had read the Yupiit did not have Sedna, Ben asserted they did. I also asked Ben about the seal image sometimes painted in the bottom of old wooden bowls. The image shows a line drawing of a seal with ribs and organs depicted (figure 9). He stated the spirit lives inside and travels through the

gut. Women are the center of the world, he asserted, because they give birth, and the baby travels through the gut (internal organs). This applies to all living things because the spirit is in the gut/viscera/organs. In a subsistence context, Ben emphasized the animal gives it to you and it must be treated with respect. "The organ still has the soul…you must remove the organs with care, because the spirit is in the organs."



Figure 9: Detail from carved wooden bowl showing the innards of a seal, harpooned with a seal float on the end of the line. Alaska State Museum collection II-A-4227.

4.2 The Subsistence Hunting Network

Unlike museum networks, the village network has a strong degree of animal agency through the activities of subsistence. Darlene Ulak tells me 80% of Scammon Bay residents do subsisting. Most do not live a fully subsistence lifestyle. There is also a grocery store and a convenience store in the village, and food stamps are common. The youth pastor estimates a third of the food

in the village is subsistence. The "field" of the Scammon Bay ecosystem is a crucial part of the network that makes *qiluliuryaraq* possible.

4.2.1 Animal Agents: Where, When, and Which?

The homes in Scammon Bay have windows in the kitchen or living room facing the river. Many homes have binoculars on windowsill (figure 10). "If you see a seal in the river, all the men run down to take out the boats, it's very exciting..." says Darlene one afternoon. Yup'ik Grandma smiles and gives an approving look. Johnny says, "We've been told by older folks, don't say, 'I'm gonna go out and get a *maklak* today.' Better to say, 'We're going to go out and look around.'"



Figure 10: Binoculars on the windowsill of the Ulak home in Scammon Bay, April 2019. The river is the dark line beyond the houses. Photo by Ellen Carrlee.

He states that mid-March is when boats start to be brought out for *makliit* (bearded seals, plural of three or more). When I am visiting in early April, there is still abundant snow on the ground and ice on the river. People are ice fishing, jigging, for smelt by the river's edge. There are many boats still waiting, but boat-shaped holes in the snow show where the boats have been pulled out and dragged to the open water with sleds. Boats hunting seals usually go around islands, up ice flows, or wait on the ice. Johnny goes these days on snow machine, a long way, maybe all the way to Black River and then on foot. Darlene's father used to go camping in the springtime, below the big hill, and would use a net to catch whales and seals. Now they mostly use rifles. Darlene says *nayiit* (spotted seals) were at the mouth of the river last year, which is unusual.

The beluga whale, a small whale with pale skin, is the only whale hunted in the Scammon Bay area. Darlene's brother Naaman Kaganak indicated the whales are easy to see and chase in the river. They make a wake in the water because it is shallow and they cannot dive. Usually, they go in the shallows to eat and look for food. Sometimes the whales come up the river when the killer whales are spooking them. Naaman's wife Mary recalled that her mom, as a little girl, saw this when camping. The killer whales tore the belugas to pieces. Mary describes, "The shred would go all over!" Scammon Bay hunter and educator Harley Sundown described the Yup'ik hunting technique. Hunters follow in the wake of a beluga whale and make a huge circle with the boat. The water in the river and shallow areas where it enters the ocean is murky and the whale cannot easily be seen through the water because of opacity caused by silt. This is why seeing the small waves from the wake of the animal is important. Circling traps the whale until it is close enough to be shot. Harley has seen old photos of Elders who are weaving nets for beluga. He knows some people in the Nome area still use nets to catch belugas. "We used to have them here. Long ago... that was the age of the kayaks, but it is hard to catch up with a kayak. Nets back then were a practical way of getting belugas without human energy. Let the net do the work for vou."

The best seal hunting happens in the spring, during mating season, when the animals are the fattest from the cold winter. Harley's sister Alice Rivers reported, "When they are around, in the springtime, we hunt *nayiq*, *maklak*, and *issuriq* when they are seen. And these come with the ice like any *maklak* and they pass. It's not all the time year-round they hunt, it's some certain part of the springtime." Seals are less solitary during mating season, and the seals hunted in this area of Alaska pup on the ice. A seal on the ice is much easier to see when hunting than a seal in the

water. I visited Scammon Bay in early April, 2019. At that time, hunters were mainly looking for *maklak* and *nayiq*. There were not many spotted seals. Uncharacteristically, there was hardly any ice. Harley explained:

Our ice has gone out the past few years very fast. The traditional conditions and window is no longer the case. Where and how to hunt has changed...seals move with the ice and food. Hunting in next few weeks, seals follow the herring. Just like the whales followed the smelts and tomcods. Whales are either here for the fish or scared by the killer whales.

Hunters can look for heads in the water, but it is harder than seeing a seal hauled out on the ice. Johnny Ulak described their habits: most seals stay away from each other, but springtime spotted seals tend to stay together. *Maklak* don't tend to hang out with them. *Nayiit* tend to be alone on the ice. He has never seen a bunch together. This time of year is good to dry meat, because the fall season has flies. Flies can lay eggs on the flesh and ruin the meat. In the early spring, the drying fish hanging outside the houses are mostly pike, and there is black meat from whale or *maklak*. They do not hang walrus or *issuruq* (spotted seal) meat.

In the fall hunters can catch *makliit* and *nayiit*, and if they are lucky, ribbon seals. *Makliit* also come into the river during berry picking season, late July early August, but they are not as fat as springtime seals. Early fall ones tend to sink. If they sink in the river they might show up on the bank later that day or the next day. "There's lots of seals in the fall time." Alice tells me. "They go hunting out when river is almost frozen... that's the time to hunt" I ask if there are *maklak*, too, but Alice says, "Hardly, not so many. They do come but we don't make them intestines in the fall time, only springtime. That's what mom used to do." Alice does not specify why

intestine tends to be made in the spring instead of the fall, but reasons might include the abundance of flies in the fall or perhaps competing subsistence activities that compete for time.

Tungungquq is the name for an adult bearded seal in Toksook Bay. The Yup'ik words maklak (for bearded seal) and nayiq (for ringed seal) are the only words I heard used for these animals in Scammon Bay. I heard people use the terms "spotted seal" and issuriq interchangeably. These seals can be nearly as big as a maklak. Johnny tells me the flavor of the nayiq and the issuriq are very similar, but locals can usually tell which one they are eating. Everybody uses the words "beluga" and "walrus," although the Yup'ik words are cetuaq and kaugpak. Qasgulek is the word for ribbon seal, but these are rarely seen, only a few in the fall. There is a beautiful ribbon seal pelt hanging in the school commons.

More specific vocabulary describes certain kinds of seals. *Qariq* is the word for a *maklak* that makes a whistling song underwater. "They are making noise underwater looking for a mate," Harley says. "Only approach when they come up, they are not listening then. Where they dive, don't approach, they are whistling but also listening..." *Turuq* is the word used for a rutting bull, but they are also called "stink seals" because they smell like kerosene or gasoline. There are more of them in the springtime. Mary Kaganak once tried to process a seal that smelled like gasoline. She only got "about one-seventh of the way through it" before she had to throw it out. Harley tells me, "Nothing to be done for those, just have to get rid of them, feed them to the dogs. Generally they are darker, the ones that are rutting. Let it go or give it to the dogs." Hunter Naaman Kaganak is only half-joking when he says, "Avoid ones with hickeys on their necks, the lovers...horny toads!" A story is told about many years ago when a *kass'aq* (Caucasian) resident

made a seal decoy out of lumber painted like a ringed seal. The *kass'aq* cut the mouth part off a real seal and attached it. Harley and an Elder from Nunam Iqua saw a seal come right up to the decoy. "When it came up it had a hard on!" exclaimed Harley, who was recounting the tale. Unknowingly, they had made a female seal decoy. They took a picture. Harley later said, "I couldn't stop laughing!" When I ask about males and females, Johnny tells me you cannot tell the sex until it is cut up. You cannot tell the sex of the animal, he says, and it "doesn't really matter." Hunters suggest not pursuing the big adult *makliit* unless there are hardly any seals. The younger ones, the two-year-olds, are better meat. Older seals are tougher. They get huge, almost as big as a walrus, and everything is more work. "Even eating them is more work," says Johnny. "Don't shoot those big ones, leave them alone." Darlene agrees, "Tougher meat if they are older."

Johnny and Darlene had heard of giving a seal a drink of fresh water when I inquired. Darlene did it once, and said that some people still do it. I asked her about seal bones and special treatment, and she reported that not much in the way of special treatment is done today in Scammon Bay. Harley recalled that seal bones used to get buried, but now "they could be fed to dogs. Dogs are part of the party. Everybody's involved. Flies enjoy the party. Nature does its job of cleaning up." When I was cleaning up after gut processing and asked Darlene how she wanted the wooden cutting board cleaned, she told me to lean it up against the side of the porch, just outside the door. She hesitated a moment and explained, "It will clean itself."

Ann Fienup-Riordan has described the story of "The Boy Who Went to Live with the Seals" as well-known throughout the Yup'ik coastal villages, and I had hoped to use this familiar story as

a jumping off point in my fieldwork conversations. To my surprise, no one seemed to know the story. Yup'ik Grandma eventually cautioned me to stop asking about it. Just when I had let go of this approach, Harley Sundown brought it up unbidden. We were chatting about hunting while in his office at the school. He told me, "The way to take care of animals determines how readily available they are, and how available an animal would be to your husband." The story he recounted is summarized here:

A father wanted a boy to be a shaman, but the tasks were too great to become a shaman, and the ordeals were too hard. The parents chose instead to have him become a great seal hunter. There was a ceremony, they hung urinary bladders in the *qasgiq...Nakaciuryaraq* is it called... "the seals' spirit goes into the bladder when you kill a seal." Every spring, the Nakaciuryaraq festival includes making a hole in the ice to let the seal bladder go. "The dad got the shaman to put his boy through the bladder, let him go out into the ocean. While out in the ocean, he saw all kinds of seals. Some were swimming with pots and pans making all kinds of noise." This meant the lady of the seal hunter didn't process them right away. "Some were normal and fast." The seals knew who not to give themselves to next time. "Seals only give themselves to who they deem to be worthy. People still believe this, at least I do." While the boy was living as a seal, "The boy was taken in by a really nice family. Some seals that bullied him...people who bullied him...he knew where they liked to go when the tides were going in." After some time living under water, "The boy came back through the bladder that was hanging, came right into the qasgig. He became the best seal hunter." His skill at hunting was directly related to what he had learned living with the seals. "He knew which seals were bullying him so he caught those first."

I asked Harley about the story Ann Fienup-Riordan describes in her 1990 article "The Bird and the Bladder: The Cosmology of Central Yup'ik Seal Hunting." He stated there are no stories he knows of a bird or the imitation of a seabird for easing the moment of killing. "Different areas have different stories and different traditions of how and why" he explained.

4.2.3 Object Agents: What Do People Bring Hunting?

Naaman Kaganak uses the same gun and same harpoon for hunting seals, whales, and walrus. Naaman is the only hunter I spoke with who mentioned hunting walrus. It seems to be rare, and there is a framed photo on the wall of the Kaganak home featuring Naaman with a walrus he shot. People in Scammon Bay seem to agree that almost everything about hunting equipment is modernized. Everything, perhaps, but the tip of the harpoon. Johnny Ulak describes this as aluminum or brass, often made from found pieces of metal shaped with a hacksaw, file, or Dremel tool. Some hunters also make extras to sell. I asked about the shapes, and Johnny said some hunters make the harpoon tips in the same shapes their family has been making them, or they might use other designs the hunter has seen. There are different kinds of tips, not just one specific kind.

In his office at the school, I asked Harley about harpoon tips being traditional. Harley happened to have a shiny new cylinder-shaped chunk of solid brass on his desk. He hefted it in his hand with satisfaction. "Brass is really easy to sharpen, you can solder onto it to make a blade, you can solder steel onto it. Really easy to work with, it doesn't rust." I asked him if he has several harpoon points. "We live in luxury! We have 2 or 3 snowmachines, just like you have 2 or 3 cars

for your family. Gotta have a spare, sometimes they sink. If they sink, you lose a harpoon. That's just being prepared."

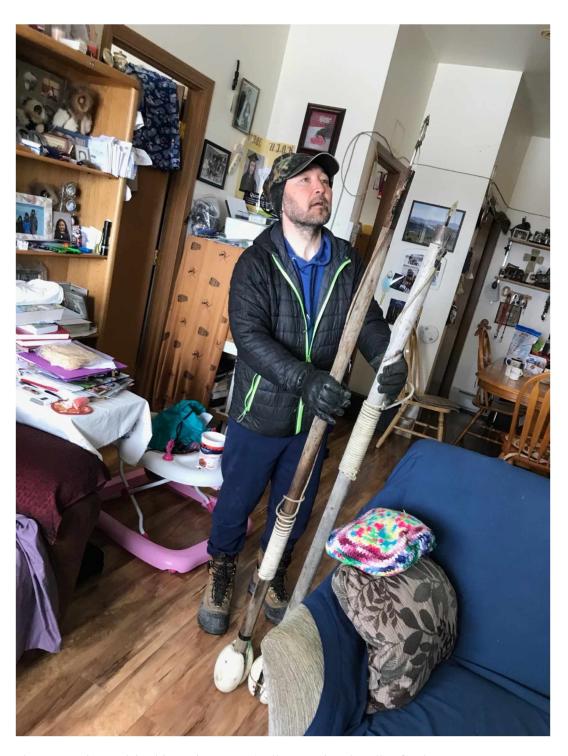


Figure 11: Johnny Ulak with two harpoons, April 2019. Photo by Ellen Carrlee.

Back at the Ulak house, I asked Johnny if he would show me one of his harpoons. He brought two inside, and I was startled by how similar the form is to the old ones in museums (figure 11). I had expected the implement to look completely different than the historical harpoons. A piece of copper or metal pipe at the end behind the tip helps give weight where heavy walrus bone was used in the past. A styrofoam net float at the back end prevents the harpoon from sinking, while in the past that would have often been an inflated seal organ. Handles for modern harpoons are made of a 2x4 board cut in half longitudinally. Old ones were made from driftwood. The rope on Johnny's harpoons looked to be made of nylon, while the old ones usually had line made from bearded seal or walrus skin. These two harpoons were out in the shop, and Johnny keeps more in the boat. Considering harpoons as agents in the network, they appear different in material composition from their predecessors but are essentially the same fundamental hunting tool.

4.2.4 Human Agents: Who Goes Hunting? How Are Animals Caught and Shared?

Hunting for seals and whales is not a solitary activity. During my visit, I hear people on the VHF radio asking to go along hunting. Harley tells me, "You go with your buddies. Sometimes take somebody else. Go with different kinds of people, you find out who is lucky, who is bad luck." Johnny hunts with different people, sometimes a relative, sometimes his son, maybe three people, but if it is a bigger boat, they might bring more. The whale Naaman caught during my visit was taken with his son-in-law. I asked Harley if women hunt for seals. "Some women do. There was a taboo before." His sister Alice Rivers mentioned that she has hunted seal, and caught small ones. She almost got a *maklak* once, but someone shot faster. Alice liked to go hunting with her husband when he was alive, and still likes to travel and go camping with her grown children and grandchildren. She considers herself adventurous. "We used to go hunting.

Was it unusual for a woman to hunt? I went...it's not... it's not unusual for *me* to go hunting."

Darlene, too, has gone seal hunting and caught *nayiq*. She also hunts moose. Darlene says it is up to the women whether they choose to go hunting. Mary goes hunting as well. "Yes, but I don't shoot, I just follow along." While these examples indicate women do hunt, it is mainly the men who go hunting, indicating a gendered component to this subsistence activity.

Hunting partners are important, too, in the food-sharing sense. Both Harley Sundown and Johnny Ulak emphasized detailed rules still observed about which parts each hunter in a party may take. The first time a young hunter ever catches a *maklak*, it is given away. "This first-time catcher, gives away the whole thing." says Harley. It is cut sideways in strips and given out to Elders and other people. The hunter and his family does not keep any of that animal. Harley says they do this for hunting luck later on. Today Harley still gives away his first catch each spring. He is not sure how many people still practice that. In Hooper Bay, he told me, they still do the *uqiquq* (sealing party) announced on VHF, going around to the houses giving away the fat and the meat. "They don't say the word *uqiquq* here, but some people still do it here in Scammon." Harley went on to describe:

Practices of getting seals still so important...how caught, how cut up, how to split the animal after... First, the *kuyaqtagg*...get lower part, leg area of seal. Goes to your hunting partner. #2 *aqsaquq* stomach area right below the chest. #3 if there is a third person there they get the mid- part, intestines, stomach area. #4 Main hunter got chest area, the fat, the skin. *Nangneq* is another part, maybe ½ the leg, half lower part, piece of the fat.

Eating reinforces and reminds people about hunting relationships. When I came home from the village tour on my first day in Scammon Bay, the mixer was going to make *akutaq*, there was

whale in the pot, and *nayiq* in a bowl on the table. Johnny and his hunting partner John had been successful. Since the whale was caught in John's boat, he took more of the whale. Whale is not divided like a seal is, with rules. But slabs of whale meat were shared with five families that day. They chose to share the whale, mainly with the community Elders. Flippers are the best part of the whale, in Darlene's opinion, and we enjoyed beluga flipper for dinner (figure 12).



Figure 12: Dinner at the Ulak home, Monday April 8, 2019. *Qiaq* (outer intestine) on the black plate, *qetget* (horsetail root mouse food) in the white bowl, and beluga whale flipper on the white dish to the right. Photo by Ellen Carrlee.

4.3 The Subsistence Processing Network

While men usually do the hunting, women typically do the processing. Hunting is weather-dependent, and processing is catch-dependent. Neither can be predicted, and a family must be ready. Subsistence food is best when fresh but often arrives in quantity: a box of ptarmigans, a

whole whale, several seals, lots of fish. Most homes I visited had many large chest freezers or upright freezers (figure 13). It is not uncommon for a house to have 30 or more cubic feet of freezer space. By comparison, my own home in Juneau has less than four cubic feet of freezer space. Homes often had racks of fish or meat drying outside. It seems that when food is freshest, sharing promptly and generously cultivates good feelings and reinforces relationships as well as maintains peak food quality.



Figure 13: A typical freezer full of subsistence bounty in Scammon Bay, April 2019. Photo by Ellen Carrlee.

When we first arrived from the airport in Scammon Bay, the Ulaks' young grandson also appeared at the house with a box of ptarmigans he had shot. These went into the cool shed until the next day, when Johnny caught a *nayiq* (ringed seal). "That *nayiq* will be Annie's" he stated. After dinner Johnny took me to the school to see "a friendly dance competition with a nearby village." Back home after the *yuraq* they were processing the catch on the kitchen floor. While Darlene was processing ptarmigan (shockingly fast) Annie was busy scraping the seal skin. The meat was already gone. I began learning to pluck ptarmigan. Darlene did not tell me these steps verbally, but I watched her and imitated her actions. The steps were as follows:

- 1. Pluck the main body feathers. They are also good for mopping up blood as you go along.
- 2. Break the joints at the wings and cut off with an *uluaq*. (I made an error at first and removed at the shoulder. It ought to be removed at the tip).
- 3. Break the knees and separate the joints to cut off the feet.
- 4. Twist off the tail. This may be used later for artworks.
- 5. Between the breasts is the crop. Two tubes extend from it: one to stomach and one to neck. You can gently peel this organ out of the body, then sever the two tubes.
- 6. Peel the skin down under the chin.
- 7. Peel the skin off over the head, like a hood...all in one piece. If you first peel the skin from ear holes, it will all come off easier.
- 8. Poke two thumbs in the bird's rear to tear it open.
- 9. Pull out the intestines and discard. Those will smell a bit.
- 10. Keep the heart. It is high up in the chest, and is cone-shaped.
- 11. Keep the liver. It is very dark, kind of gelatinous, and lobed.
- 12. Slit the gizzard with a very shallow slit, and peel it gently away from the stomach.

Nearby, Annie was on a low stool with a cutting board at a steep angle, using an *uluaq* and pressing very firmly against the board to separate the fat away from the skin of the *nayiq*. This has to be done carefully, to leave as little fat as possible on the skin but without cutting a hole in it. Afterwards, she put the skin in a large bowl of soapy water. The slick, shiny fur had a beautiful pattern and the bubbles were very clean. Annie saw me looking and instructed me to watch Darlene process the birds instead. I noted it is hard not to pepper people with questions, but if you are talking and formulating questions, you are not focusing hard enough on paying attention and trying to figure it out for yourself. Smaller seals can be done on the table, bigger ones on a piece of clean cardboard on the floor. Sometimes a large seal might be cut up in the shed. Men butcher outside the house, sometimes at the ocean. The seal skins tacked up on the sides of many houses were *nayiq*. Some houses have a large oval of oily stain where skins were recently taken down. To really understand processing, Darlene asserts, "...you'd have to see the different households do it, how they take care of their catch."



Figure 14: "Ornament" made from the inflated crop of a ptarmigan, April 2019. Photo by Ellen Carrlee.

The ptarmigan's "crop," an organ-like a pouch, can be inflated and made into an "ornament." Darlene's daughter taught me to tie off one tube with thread and blow in the other. The crop inflates into a small balloon the size of a tennis ball. We hung it to dry and the next day it was translucent and delicate with seeds, grains, and dried berries visible and rattling around inside (figure 14). I noticed these ornaments at several other homes during our visits, often hung near a window to catch the light. Only later did I realize why it might be special. Ben Charles told me during his tour of the Bethel museum that the shaman would call for an ornament to be made...the *Yuyaraq* symbol. This is a pretend model universe, made from sticks bent into a globe-like sphere, hung in the center of the *qasgiq*. There is an example of one on exhibit at the

museum, and when viewed from beneath, it looks like the symbol on Ben's arm, the threedimensional representation of his two-dimensional tattoo. This "ornament" in the qasgiq would sometimes have at its center the inflated organ of a bird (a duck or ptarmigan) with seeds inside. I was shocked to hear this...he was talking about the crop! The same thing we inflated from the ptarmigan at Darlene's house, and they also used the word "ornament" in describing it. A shaman would have the model universe made to order and decorated with animals or whatever was being requested of the spirit world by the village. Ben told me, "The inflated organ with seeds and grains and berries inside was the creator coming into this world to be present. The presence of the creator at the ceremony. Hung at the center of the *qasgiq*, above the dancers, held suspended above by a sinew or grass rope." In the spring of 2020, during the next ptarmigan hunting season, I saw images of this inflated organ posted on social media. It was clear from the comments that most people are not aware of its spiritual history. Hanging the ornament in a window may be meaningful in the context that Yup'ik scholar Monica Shelden from Alakanuk describes for the Bladder Festival. "It is my belief that the Seal Bladder Festival was a ceremonial event depicting the story of when Akmilar went to retrieve the sun and brought additional daylight in a seal bladder" (Shelden 2009, 333). The inflating of the crop also evokes historic descriptions of ritual air movement in and out of seal bladders representing the soul and animal reincarnation during the Bladder Festival, as well as the special role of birds as a disguise during the hunting of seals (Fienup-Riordan 1990b).

I asked Darlene if most people still know how to cut up a seal. Most people do, she told me, but not all the young people have learned. Many are learning. For example, a grade school-aged girl might be allowed to cut the seal meat away from the fat but not the trickier step of cutting the fat

away from the skin. Darlene's mother died when she was young, so she watched her older siblings and relatives. Sometimes her dad got a *maklak* and she had to process it by trial and error. Darlene's younger daughter had watched the process many times, and the first time she did it, did not even tear the skin.

Mary Kaganak knows how to process gut, and on my first visit she encouraged me to fetch two rolls of processed intestine from the topmost shelf of the kitchen cabinet. To reach it, I had to kneel on the counter right next to a beautiful red velvet cake with icing and sprinkles. There was a comical moment of longing as I teetered on that counter between two of my greatest desires. My heart sang when Mary said, "...and help yourself to the cake!" We chatted about the rolls of gut from the kitchen cupboard, one from a *maklak* she processed and the other a *nayiq* from a woman in Quinhagak. The *nayiq* gut was narrow, flawless, and very uniform but it seems intestine from this seal is rarely processed. On my second visit, Mary was on the floor in the kitchen, cutting up whale into ziplock bag-sized pieces. She cuts off some of the blubber (but not all) to prevent freezer burn. The bulk whale meat was in large tidy pieces in the sled outside. Naaman and his hunting partner Brian hauled it back from the ocean in the sled using the snow machine, along with a blue plastic tote full of organs. On that second visit, Mary and I tried to process the whale intestine. "I like working on stuff, it's boring not doing nothing, right Naaman?" laughed Mary.

4.3.1 *Uquq* (Seal Oil)

Seal oil is the most important condiment in the Yup'ik world. There is some difference of opinion about the best seal for oil. According to Darlene, *nayiq* makes the best dipping oil

because it does not turn rancid as easily as *maklak*. *Nayiq* also has a gentle flavor and is easy on a sensitive stomach. She uses spotted seal if *nayiq* is scarce. Johnny mentions the brown spotted seals make really good oil. They can be recognized by their brown spots.

Cutting the blubber away from the skin requires more skilled work than cutting the blubber away from the meat. If a hole is cut in the *nayiq* skin, it must be sewn up promptly, or the oil will seep through the hole and stain the fur. Mary Kaganak was doing this stitching work on a skin during one of my visits. Close cutting of the fat is necessary because getting as much of the fat cut off the skin as possible makes the step of cleaning the skin more efficient. Careful cutting of the meat from the blubber is precise work as well, because if there are little meat pieces in the oil, it will result in a darker oil and change the flavor. The fat is cut into pieces after it is removed from the skin, roughly one inch wide and several inches long with shallow parallel slits cut in them. The strips look crenelated like the tops of castle towers (figure 15). Seal fat was rendering in many of the homes we visited. In our host house in Toksook Bay, it was next to the door inside a 5-gallon bucket lined with a fresh white kitchen trash bag. The top of the bag was bent over to lightly cover the surface. Another Toksook Bay home had seal fat rendering in large clear plastic food jars near the door by the coat rack. At Charlie and Catherine Moses' house in Toksook Bay, the seal oil was rendering in a metal bowl on the floor of the kitchen. At Darlene's house in Scammon Bay, there was a square plastic bucket in the kitchen. It was loosely covered with aluminum foil, perforated by holes made with a fork. Some sort of covering helps keep the oil clean. Air circulation is important, and the oil is stirred twice a day. Thinner slices will render faster at room temperature. Mary Kaganak indicated the process takes approximately a week to ten days, but goes quicker when it is warmer.



Figure 15: Strips of seal fat rendering into oil (uquq), April 2019. Photo by Ellen Carrlee.

After rendering, the strips of blubber must be removed or they will make the oil rancid. They are much reduced in size when the oil has rendered out, and the pieces are limp and small, like several inches of wet noodle. I saw children slurp these down with great relish, but it was the only food item I struggled to swallow. As a newcomer to Yup'ik cuisine, I was cautioned to take only a small piece. The flavor is very intense and concentrated. I was afraid to swallow it whole, as it was several inches long and I didn't want to choke, but it is very chewy and difficult to masticate into smaller pieces. Each bite releases a powerful burst of overwhelming flavor.

Darlene estimated three-quarters of a five gallon bucket of oil comes from one *nayiq*, and two five-gallon buckets can come from a *maklak*, but it depends on the size of the animal and thickness of the blubber. When they had 20 gallons from a *maklak*, they kept ten and a local widow got the other ten. Darlene keeps her oil in the freezer, in plastic juice bottles; she says it is usually used within a year, maybe two years at the longest. When she "pokes" the dry fish, she stores them in 5-gallon plastic buckets in the shed. In the 1953 Disney film "The Alaska Eskimo," Darlene's mother is shown taking fish from a seal poke. In the past, a hollowed-out whole *nayiq* body (a poke) was commonly used to store meats. This included herring, pink salmon, or *maklak* meat in *maklak* oil. Darlene showed me a special blade, a *nayuggsnum*, her father made for her to scrape out the pokes, now a family heirloom (figure 16). Making *uquq* is significant because it is the most cherished condiment on the Yup'ik table. The presence and flavor of this oil is a reminder of the network of subsistence relationships that are at the core of being Yup'ik.



Figure 16: Heirloom handmade tool, a *nayuggsuun*, used to scrape out a seal poke. April 2019. Photo by Ellen Carrlee.

4.3.2 Cooking and Cuisine

There is a great deal to know about cooking subsistence foods. In spite of my enthusiasm, I did

not explore cooking much during my fieldwork this time. Some animal parts are eaten and some

are not. Darlene tells me the kidney, heart, and liver of the *nayiq* are eaten, as well as braided

intestine of smaller *nayiit*, which are cut into 3" sections and used in soup. Its consumption is

like other food, "Fried, boiled, dried...it's to your taste." Nayiq and maklak boiled is the way

Johnny likes it. Darlene, another way. "Up to the family, the household, how you prefer, what

works best for you..." she says.

Alice Rivers: We eat the heart, lungs, out from the beluga...we eat the lungs, I don't

know about the liver. I've never had beluga liver before.

Ellen Carrlee: OK But maklak liver yes, right? (I'd seen her late husband Billy eating it

at the end of the film "Igloos and Eskimo Kisses.")

Alice Rivers: We kassaq it. Kassaq.

Ellen Carrlee: What's that?

Alice Rivers: Eat it RAW. You could eat it. Dip it in hot water. Rare. Fry it. Eat it raw. Even the heart of a maklak can be eaten raw. Even around the heart the white part, the crunchy part, can be eaten raw too. You can't overcook a maklak. But with the nayiq,

beluga...when we cook it, it has to be in a certain way that my husband wanted me to cook it. I could never overcook things like that or else he'll say I overcooked it and the

flavor is GONE.

Darlene describes the way to prepare seal flipper. It can be made with maklak or nayiq, but she

only does it with maklak. "Flipper and hand both," she says, meaning both the hind flipper and

the fore flipper. The flipper is put in a paper bag inside a box, left at room temperature for two

weeks in the house or three weeks if it is on the porch. When it is aged, the fur comes off and it

can be peeled and the nails will come off. It will smell strong. "It's not for everybody." The

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flipper is boiled. The top layer is like pigskin, and the next is like rendered blubber. The skin will curl up and Darlene calls them "rollos…like pigskin." Darlene also showed me some cleaned claws, made from the back flipper of the ringed seal. She boiled them for three hours, then made zipper pulls, earrings, and keychains by filling them with hot glue, and decorating them with seal fur around the edge. She thinks Johnny finds it silly. She also showed me other things she has made, and I bought a pair of dangling claw earrings with red and white beads as well as a pair of *uluaq*-shaped earrings made from slick, shiny seal fur.

Cooking and cuisine are an overlap between subsistence networks and food networks. Cooking connects to emotional well-being and pride in cherished subsistence relationships. The flavors and sensational delights of eating arctic foods have been explored by Zona Spray Starks (2007, 2011) who compares eating raw meats to delicacies like sushi and carpaccio better-known to wider audiences. She describes *akutaq* as similar to mousse, cold soufflé, or savory pâté, and likens the food preservation technology of seal pokes to French galatines or European confit. Starks' work is valuable in the evocative visualization and helpful analogies she offers to explain to non-Native readers why arctic cuisine is so much more than mere survival.

4.4 Food Networks

After the Cama-i festival in Bethel, we attended a memorial at the Catholic church for the people who had died the previous year. The profusion of subsistence foods included moose, beach greens, herring eggs in a sac, small pieces of walrus skin with the fur and fat attached, salmon, white fish, bird soup including bones, dried fish, seal oil, and many different kinds of *akutaq*. The feast reflected the fact that subsistence foods are healing, both physically and emotionally.

This has recently been reported in the new availability of Native foods in hospitals and long-term senior care centers in Alaska (Caldwell 2013, 2014, and 2017; O'Malley 2019).

After the Cama-i Festival in Bethel, we visited Toksook Bay. At the time, I was disappointed that the weather was not conducive to seal hunting. But in retrospect, I think these three days were a time for Annie to evaluate my aptitude for being in the village, and how she might best guide our research. It was also a time for me to experience the profound sense of giving and connection that is part of the culture. During my stay, the one-year anniversary of my husband's death passed. On that day, I went to a funeral the entire village was attending. I also was invited to a feast prepared by a woman I'd met just the day before, who insisted I join her family for a dinner in memory of my late husband. 22 people came, and we ate subsistence foods including beluga whale and mouse food *akutaq*. Afterwards, she gifted me two *qasperaak* cotton blouses, one of them acquired at a *uqiquq* (sealing party) some years before. Later that night, Annie and I enjoyed a *maqi* (steambath) at her house with several other women.

Relationships with food have changed with the availability of new foodstuffs, but in the village there is still a strong relationship with local cuisine, and therefore also relationships with the plants and animals that provide this food as well as relationships with the environment including the land, sea, and weather that facilitate access. Whenever we visited a home, we were usually offered food, often an entire meal. It was common for people outside the household to appear for both simple meals as well as special occasions, and considerable coming and going seemed to be associated with both dining as well as dropping off and picking up foods in various stages of

processing. People did not seem to linger. Even after a meal for a special occasion, people would leave quickly.

High on the hillside above the village of Scammon Bay is a large wooden cross. Everyone knows the story of the Russian adventurers from Kamchatka whose badly damaged sailboat forced them to seek help in Scammon Bay. This was right after the Berlin Wall came down, circa 1989. They spoke no English, and the locals spoke no Russian but they managed to communicate. The locals embraced the travelers and were generous. Eventually, the Russians were able to continue their journey, but before they left they erected the cross with broken beams from their damaged boat. This gift recognizes the commonality of belief in Christ, but the youth counselor surprised me when he described its significance: "It means, no one starves in Scammon Bay." The cross standing now is the third or fourth version. Subsistence includes generosity with outsiders as well, since giving is part of the Yup'ik value system.

4.4.1 Pukuk (To Pick All the Meat from the Bones)

A large artwork of Native words on the sign near the entrance to the high school in Bethel includes this:

PUKUK "SUCK THE MEAT OFF THE BONES" JUST ONE WORD IN YUP'IK LANGUAGE ILLUSTRATES A CULTURE'S WORLD VIEW.

The word *pukuk* has profound meanings associated with identity, subsistence, and values. One of the most striking observations during my fieldwork was that expensive store-bought produce might rot on the counter, but there should be a pile of clean bones next to one's plate after a meal. In Toksook Bay, we visited the home of an elderly couple at lunchtime. Soup was served,

made with large fish tails, ramen noodles, and mushrooms. I sipped the broth and watched to see what others did with the tail. They would tear the tail up the middle, bunch up half in the left hand and suck off the meat at the part that attached to the fish. Next they would scrape the bones of the tail, still held in the left hand, by pinching them between the right index finger and side of the thumbnail. The soup was served with homemade bread similar in texture to cornbread but made without corn. There was margarine for the bread, and dessert was *akutaq* and Labrador tea. The table was covered with a large sheet of glass protecting a collage of photos, announcements, and greeting cards. Posters on the walls also showed the school accomplishments of the children in the family.

This kitchen was full of objects in the network that were serving as indexes for the agency of others. The fish, *akutaq*, and tea demonstrated the subsistence network of the village, and also the symbolic and economic capital enjoyed by these Elders who were too old to procure these items themselves. The photographic and paper-based items in the kitchen were indexes reflecting the agency of family and friends valued in the network of this old couple.

One meal illustrating *pukuk* at the Ulak house was a kind of soup made with ptarmigan they called "flour soup." It featured a mushroom-y broth almost as thick as gravy, though it seems the thickness varies with who makes it. Annie was doing a lot of whisking at the sink, and Darlene said it is thicker than hers. Eating the parts of the bird served in the soup was an oral adventure. Exploring the bones and anatomy in my mouth was strange to me, and I felt like a baby or a puppy finding out where to suck or bite. I knew I would regret not trying to eat the head, so I pulled off the neck and nibbled it all over before I dared to try the eye. I squirted eyeball juice all

over my shirt. Darlene instructed me to poke into the eye with the edge of my lower front teeth so it would squirt into my mouth instead. I think if you bite it correctly, you can grasp the edge of an eyeball with your front teeth and pull it out, but I could not master it right away and had to messily dig out an eyeball with my finger. It was gelatinous, sort of like a bubble of plastic film, and seemed more about texture than flavor. Johnny says he doesn't eat them. I could not figure out how to open the skull. Yup'ik Grandma observed my struggle and said, "Just bite it!" So I crunched down on the bird skull and bits of bone went in between my teeth. Inside the brain was white and tiny and challenging to suck or nibble it out. I have to use my pinkie nail. The brain is tasty. Soft, fatty, creamy, and slightly nutty. Nice. Everyone's napkin was still clean but mine. Pukuk can be analyzed as an example of both habitus and doxa. In his article about structure and agency in art, Robert Layton states, "Bourdieu proposed a dialectic between structure and performance. Habitus is the individual's reconstruction of the rules and tactics deduced from other's actions. Children deduce action from the performances of adults" (Layton 2005, 41). People who know how to pukuk learn how to do so by observing and mimicking others. The reason doing so is special is doxa. Respectful "sucking the meat off the bones" is beyond the specific events or histories most people know personally, such as famine or starvation, but learned and absorbed by observing and imitating the frugal and careful actions of respectful parents, teachers, and Elders.

4.5 The Family Network

If networks are relationships in action that can include human, animal, and object agents in a moving circulation of gifts, what about family? In exploring how to use a networks-of-relationships approach to fieldwork, I recognize that a deeper understanding of kinship would be

useful. In the village, there are a great many ways people are connected to each other, forming a web of person-to-person relationships that are invisible to me but well-known to most locals. Two framed black and white photographs hang above the window in the living room of the Ulak house. The woman in the photo is Mamie Ulak, who passed away in 2011 at the age of 107. The memorial program from her funeral stated that she raised 24 children. Mamie Ulak is Johnny's biological grandmother, but she raised him and he refers to her as "mom." The generation my own age (the "parent generation") and older generally came from families with many siblings. Adoptions were and continue to be very common. Children are sometimes raised by grandparents. Young people speak openly and without awkwardness about their "bio-mom" or "bio-dad" in casual conversation.

Mealtimes in a particular household in Scammon Bay regularly included someone who did not live in the household. People popped in and out frequently, but only stayed a brief time. Visits were generally quick, even for eating. No one seemed to "wear out their welcome." People would also pop in to return a borrowed item, or pick up something to use or to deliver elsewhere. Who were these people, and how were they connected? When someone was introduced to me, if they were introduced at all, it was not unusual for the namesake of that person to be mentioned as well, along with an explanation of kinship that I often could not quite follow. I was frequently confused by descriptions about namesakes or English versus Yup'ik names. It was hard for me to catch who "he" and "she" referred to in the abundance of information that was rattled off quickly. Since namesakes might not be the same gender as the person present, but the living person might be spoken of using the gender of the deceased, pronouns were especially confusing. Younger people got less of an introduction. In the flow of activity and conversation typical of

someone's arrival, I did not ask them to repeat it for fear of seeming nosy. People are commonly given Yup'ik names of relatives and community members who have passed. There are also categories of kinship that do not exist in my own culture. Yup'ik content on social media sometimes features memes or jokes that mention, "when your *iluq*... (insert something funny he did)." The word "iluq" refers to a male cross-cousin, either the son of the mother's brother, or the son of the father's sister. Teasing cousins are still part of the system. When I asked my friend Eva in Bethel about the word "iluq" she says she'd have to look it up in a Yup'ik dictionary because relatives her age aren't using those terms. But then she launched into a discussion of all her Yup'ik names and where they came from. Eva tells me,

It's a great safety net these given names provide me... Yupik never really go away, that's the beautiful thing. And I firmly believe these means for making and retaining relationships, our worldviews were made to keep civility because if you think about it, we don't like conflict. We try to live a life that avoids conflict because back then we were stuck with each other in remote camps and had to get along.

Family is about action. The networks of relationships that form a family are continually created and reinforced by actions that include birth but are certainly not limited to bloodlines. Family is not about genealogy as much as it is about acts of giving. Alice Rivers has raised eleven children, eight of whom were her biological offspring and the others she told me she "took in and loved as my own." In the 2011 film *Igloos and Eskimo Kisses*, she explains, "We lost a son through suicide, [our] oldest adopted son, ten years ago. And I made a promise that I'd take in kids that need a home. That's what I did. I kept that promise and I'm happy now."



Figure 17: A *maqivik*. The door on the left leads to the cooler side for undressing and relaxing, and section with the lower roof and chimney is the hot area with the stove. The abundance of wood indicates it is well used. The red shipping container behind it is the shop. Bethel, April 2019. Photo by Ellen Carrlee.

4.5.1 Maqiyaraq (The Way of Steambathing)

Also relevant to family networks is the *maqivik*, or the steambath house (figure 17). The untrained eye might see a shabby low-slung shack with a chimney, but to someone familiar with village life such a building is a marker of wellness, connection, and joyful anticipation. When I asked Benjamin Charles in Bethel "What has replaced the *qasgiq* in today's village life?" he responded without hesitation: "The *maqi*, just in smaller groups." I once spoke with a woman at an anthropological conference who had done her fieldwork in a Yup'ik village. After nearly an entire summer, she finally secured an invitation to *maqi*, and considered it a breakthrough in

gaining the trust of the local women. I recognized that my great fortune to take steambaths in three different communities during my fieldwork was a testament to the power of having Yup'ik Grandma as a chaperone. Everywhere we went, I basked in the benefit of the generosity that was showered upon her. Annie is always keen to have a steambath and mentioned it often with excitement. Annie has her maqi kit in a small bundle, ready for an invitation at a moment's notice. I made my own kit as well, containing underwear, a hat to protect the ears, a washcloth to hold damp over the mouth and for a final scrubbing at the end, a handtowel to sit on, bar soap, shampoo, conditioner, a comb, and something to restrain my hair. All these were bundled in a bath towel that I placed in a bag that could be hung on a nail. Space in the steambath is at a premium, more so if five or six women fill up the *maqivik*, and even more if some of the women are sizeable. Being prepared and organized is crucial. One particularly large woman considerately brought her own five-gallon bucket of water, saying she liked to wash several times at the end. Men and women maqi separately, although a husband and wife may do so together. Topics in the steambath ranged from bawdy jokes about peeing outdoors and "buttholes burning" from facing away from a hot *maqivik* stove to very serious discussions about illness, death, grief, and redemption. Health and wellness struggles were a discussion point, as well as tips for stress relief, beauty products, and weight loss. Gas was passed freely, naked bodies were sweaty, and people laughed easily. It was an atmosphere of intimacy, empathy, and togetherness. One woman with a *maqivik* in her yard said she likes to *maqi* at least once per week, even in the summer. General consensus held that a steambath gets a person cleaner than a conventional bath or shower. Once I got the hang of it, I understood why. After several rounds of steaming, the skin begins to itch as the pores open and oily dirt is pushed to the surface by the action of sweating. Everyone had coarse knitted plastic loofahs for rigorous scrubbing the final round, and the

satisfaction and sense of self-care is profound. Attending to this very personal care activity simultaneous with sympathetic camaraderie imparts an extreme feeling of well-being. I began to regret that my dissertation topic was not the Yup'ik *maqiyaraq*.

In addition to food and meal-sharing actions, the *maqi* is an action that, like eating, can incorporate friends and close connections in a repeated action that reinforces a family-like network. Here is an opportunity to explore the four steps of ANT translation using a thing as an Obligatory Passage Point. Since the *maqivik* is a thing that is central to a very successful and longstanding practice and a hub of networks of relationships, analyzing it as an agent in a network reveals the strengths and weakness of this approach before gut is analyzed in a similar way.

- 1. *Problematization:* the *maqivik* is indispensable in this case as a focus for the wellness that steambathing promotes.
- 2. *Interessement:* the "negotiation" with the steambathers to accept the definition of the *maqivik* is unnecessary, because the practitioners have a deeply rooted conviction of its necessity based on a lifetime of steambathing. It goes without saying that steambathing is a worthwhile and cherished activity.
- 3. *Enrollment:* Other actors become aligned with the purpose. An example would be the excitement Annie expressed when she saw a *maqivik* on the property of someone she was visiting.
- 4. *Mobilization:* the monitoring of the actors' interests so their participation continues and the network perpetuates could be addressed by the architectural features of the hot side of

the building that accommodates heat build-up, the stove with rocks on it that release steam when water is spilled over them, and the cooler section of the building for conversation and relaxation

If this analysis seems awkward, it is because it is difficult to imagine the intentionality and actions of the building itself to force these steps to occur. Instead, if we substitute a human as the agent, and consider the *maqivik* as an index of that person's agency, the analysis becomes less awkward. In Gell's Art Nexus (figure 4), the "artist" would be the person who built the *maqivik*, the "recipients" would be the people who enjoy steambathing, and the "prototype" whose agency is manifested through the "index" of the physical building is perhaps the host who invites others to come steambathe.

4.6 The Messenger Feast Network

The spring *yuraq* in Scammon Bay is described by Johnny as a "friendly dance competition" or "invitational." When I asked the specific name for this kind of event, Darlene responded it is called *Curukaq*. Later on, at the museum in Bethel, I asked Ben Charles if this was the Messenger Feast. He confirms yes it was, "...and Kotlik does it too." Harley told me Scammon Bay had traveled to Nunam Iqua two weeks prior. Some maps refer to this village as Sheldon Point. "Nunam" is the main rival village. Mainly the event is about them, but people also attended from Mountain Village and Alakanuk. It was an all-ages crowd in the school commons, perhaps 175 people total: five rows of fifteen people each with the rest around the edges of the room. The front row, and most of the crowd in the seats are from the other villages. There were some "first dances," when a child is introduced and things are given away, especially to Elders

who are visiting. Examples of things given away included: bottled water, 7-Up soda, *akutaq* in paper cups with foil covers, ziplock bags of candy or popcorn, new shovels, new axes, wire brushes, putty knives, plastic tarps, colorful nylon cord, gloves, washcloths, new Tupperware, and even round plastic wash basins that seemed to have furs or fabric folded inside and the whole thing in a white plastic kitchen trash bag.

The dancing took place on a textile floor covering, with a row of drummers at the back. People wore fancy *piluguut* fur boots, *qasperaat* (cotton blouses, sometimes worn here with handmade beaded or applique belts), headdresses, and feather or caribou fur dance fans. There was nothing made of gut at the *Curukaq*, and no one wore masks. Darlene tells me there is no mask use around the area today, but there had been years earlier, before her oldest daughter was born. "Because I didn't talk with my parents, maybe it was unspoken..." she says, "But to my parents, dancing used to be prayer. No longer that way. Now it is entertainment. No longer practicing those deep traditional ways. Maybe the older people do..." Darlene commented that old beliefs and superstitions are more common in the Kuskokwim area.

The next day I attended the "giveaway" at the school associated with the *yuraq*. First, there was a Christian prayer. Then some "first catch" items were given away. A grandson's first salmonberries were in a ziplock bag, given to an Elder in the front row. Frozen meat in a ziplock bag was a first catch. Smelts too were a first catch. Not as many people during the giveaway were wearing *qasperaat* (cotton blouses) and *piluguut* (fur boots) as the night before. Instead, there were sweatshirts with logos that indicated where people were from. The Scammon Bay sweatshirts and windbreakers are yellow and black, with a big S on the back in the style of the

Superman logo. Examples of items given away included: toilet paper, whole birds with the feathers still on them, akutaq, handknit yarn hats and headbands, ramen noodles, Irish Spring bar soap, whole fish wrapped in foil, ziplocks of mixed Cheetos and cheese puffs, kids socks, boxes of Red Rose tea bags, jars of Crisco...someone even got a whole handmade quilt! Approximately 30 people from Scammon Bay were handing things out and 90 people were receiving. I stood politely apart, trying to be unobtrusive. A lady told me I was too far away from the group. I told her that I'm not from the area, but she said, "That's what it's for, for visitors! Go closer..." So I sat in the back row. A boy quietly, almost shyly, gave me some pink knit store-bought gloves, balled one inside the other. A woman gave me a dish towel with a smile. An older woman looked at me quizzically and tentatively handed me a large plastic mixing basin. I suggested maybe it would be better for someone else because I'm from Juneau, and she seemed relieved to put it back on her pile. I told people I was "staying with Darlene and Johnny and studying seal gut." The woman who encouraged me to stand closer handed me a small turquoise plastic sewing tray and said with a smile, "See? You're in the right place!" By 2pm it was all over. There was a very short speech, a few sentences, and everyone put their coats on. The whole giveaway lasted about an hour, and the school commons quickly cleared.

Back at the Ulak home, there was a discussion about the giveaway. It seems the host town goes first with most of the dancing the first night, and if it is not too late the visitors would dance a little, too. The second night the visitors danced, and there were celebrations of first catch, first harvesting, giveaways to Elders, traditional garments were worn, and there was something that the presenters stand upon in front of the group. The catch (meat, berries) was touched to the child, then touched to the honored visitor. This rite of passage indicated the young person was

now a hunter, a provider. Darlene told me about Caroline Ulak from Hooper Bay. As a teenager in the 1980s, Darlene saw an inflated bladder from Caroline's son's first seal "hung like a sail" and she was amazed. The blown bladder was on a stick stuck into a bowl of *akutaq*. Darlene mentioned the Bladder Festival still happens in Hooper Bay in the spring. I asked her if the bladder is reincarnation of the seal-soul, but Darlene told me it would be pushing for her to give true facts on that, "better to double check with someone who will know." There is a prevalent and admirable reluctance in Yup'ik country to recount information not known firsthand. As she chatted about the *Curukaq*, Darlene happened to be listening to a podcast of a religious program in the background.

As a contemporary version of the Messenger Feast, the *Curukaq* activities revitalized in the 1980s references old rivalries among Yukon communities, with an underlying continuity of these places being in a network of relationships together (Barker, Fienup-Riordan and John 2010, 157–164). An object gifted during this event reflects the will of the giver. In Scammon Bay, the event I observed did not include a seal gut window or anything made of intestine. However, animal agents in the network are still very prominent as food given away in the first catch observances. Gell would say a gift like this circulated during the event is an index — a thing acting on behalf of a person — through *abduction*. In the first catch observance, the agency of animals is recognized in the *abduction* of their agency into the index of the first catch. Participants know that giving away that catch is somehow known to the animal and will "bring luck" in future hunting because the animal will decide to give itself to the hunter who behaved appropriately to perpetuate the network.

4.7 The Spiritual Network

During my spring 2019 visit, the youth pastor guessed there are around 650 people in Scammon Bay, about half under the age of 18, and most are members of six extended families. He told me there are four faith traditions in Scammon Bay: Catholics as the largest group, then Covenant, Moravian, and Russian Orthodox. There are not many Moravians or Russian Orthodox, who have mostly married in from the Kuskokwim region. I was curious to hear Drew make a distinction between Covenant and Moravian faiths, as Annie had described them as basically the same. Drew mentioned that Catholic families *yuraq* and Covenant do not. The Covenant church had a pastor about 15 years ago who preached that dancing was a sin. But the Covenant youth camp now has Eskimo dancing. Drew quoted the reason from the New Testament, "Don't make evil what I haven't made evil."

When I was watching the Cama-i festival in Bethel, I got the impression that religious traditions determined which villages would have dance groups I might see there. But it also implied each village was uniformly a certain faith. My visit to Scammon Bay indicated this was untrue. In fact, I was amazed to hear that Alice Rivers only recently began to dance. Alice's late mother Maryann Sundown was known throughout Alaska as the "Yup'ik dance diva of Scammon Bay." 2019 was the first time Alice performed at the Cama-i festival herself. She said her husband Billy did not want her to dance, but since he passed away she can do as she pleases. Apparently, they were of different faith traditions. Their son Billy was one of the most eagerly anticipated dancers at the 2019 *Curukaq* in Scammon Bay. Even if certain villages were missionized by specific churches, generations of marriages between villages and the fluidity of people moving between villages have changed the religious makeup of each place.

I attended Catholic mass twice while I was in Scammon Bay. The Catholic church is the largest church in the village. The only other church building is the Covenant church, where Annie and the Ulaks attended services that started an hour later. The first time I attended church, there were nine souls total, but seating for about 75. A layperson, an older woman, led the service. A visiting priest gave mass the following week because Easter was coming, but there was no priest in residence in Scammon Bay. During the service, I was asked to identify myself and tell the congregation why I was in the village. Afterward, two friendly women approached me in the back of the church. One said her husband was out hunting *maklak*, and that she had an intestine in her freezer ready to inflate. She offered to call Darlene if there was more. Johnny also went hunting at about 8:30 that morning, and someone saw beluga in the river. When we all gathered back at the Ulak house after church services, the family reported Johnny had caught a beluga. The second Sunday I attended church, there were many more people in the seats. It was no coincidence that the weather was poor for hunting.

4.7.1 The Women's Meeting

Simultaneous to the annual Covenant church conference Annie and the Ulaks attended in Mountain Village, there was an event at the Covenant church in Scammon Bay. The poster outside the church building announced, "Never Alone: a2a Women's Conference 2019" with a schedule of events. The abbreviation a2a stands for Arkansas to Alaska, a connection promoted by one of the grade school teachers who is from Arkansas. It began Thursday evening with "Singspiration," gospel singing for men, women, youth, and children. I attended with the Ulak's youngest daughter. Inside the church, seven women from Arkansas were wearing maroon-colored "Never Alone" tee shirts. They hung a paper chain around the room with names of

Arkansas people who were praying for the people of Scammon Bay. There were microphones and a keyboard at the front of the church, and the Arkansas women introduced themselves. Each one shared a personal struggle they faced, and these intimate descriptions alternated with songs. One woman's husband drowned recently, another had struggles with confidence and body issues. Another described being troubled when her best friend went to college and stopped attending church. Someone's sister had twin babies but one died. The songs included spiritual songs sung by everyone or by a small group (such as the group of four women who sing "How Great Thou Art" in Yup'ik). Sometimes they were only sung by one person, such as the tearful rendition of the Whitney Houston song "I Will Always Love You" by a young Scammon Bay woman. Members of the audience also shared personal stories of loss and struggle, some very specific and others vague. The very elderly woman next to me shared her songbook, and asked if I sing. I told her, not really, I'm a terrible singer. She said she does not really sing either, only a little bit, "but I'm trying and I'm getting better." I smiled and replied, "If you can get better, maybe I can too." At the end of the evening, the seven Arkansas women positioned themselves standing around the room and some members of the community went up to them individually to chat and be comforted. Others quietly put on their coats and left for home.

The second day of the women's meeting was from 7-10pm and involved PowerPoint-led study about four women in the Bible who faced adversity: Rahab, Hannah, Ruth, and Abigail. Nearly 30 people were present. Each attendee was given a new Bible in a box, a folder full of worksheets, a pen marked with the event's logo, and a tiny canvas sneaker on a keyring. The little shoe represented how everyone had "issues"...the punchline to an anecdote about mean high school girls who used "shoes" as a code word for someone having "issues." The Arkansas

women continued to share their own struggles: a former boyfriend who became an addict, two miscarriages, one woman has trouble with being fearful. They invited participants to write down their own struggle or burden on an index card and "give it up to the Lord" by placing it in a basket at the front of the room. The Arkansas visitors spread out standing in the front of the room and the women attending were invited to come up and pray with them. For perhaps 5-10 minutes each, the Arkansas women hugged them, held them, listened to them, and prayed. Many of the women were crying. The school teacher who seemed to be the Arkansas connection mentioned her hope: that they might be "a light for Jesus in the Yup'ik world." The following morning, 9:30-12:30am, the meeting continued with more Bible study as well as group and individual sharing of burdens and prayer. Later in the day, the Arkansas women hosted a beauty salon in a classroom at the school to help girls prepare for prom that evening.

In both these church settings, there was a predominance of spiritual leadership by secular women. There were also many examples of *habitus* and *doxa*. While both these elements are present in all human events, the church setting was an especially appropriate place for me to practice my observations of them in a setting that had both familiar and unfamiliar features. *Doxa* involves taken-for-granted, deeply held rules, beliefs and values. In describing *doxa*, Bourdieu states, "What is essential *goes without saying because it comes without saying*: the tradition is silent, not least about itself as a tradition" (Bourdieu 1977, 167 emphasis original). In my personal experience, I had attended Catholic grade school for eight years and spent my teenage and young adulthood questioning exactly those assumptions that "go without saying" in a faith tradition. As a parent I took pains to reveal the kinds of moral messages I was teaching my son in the absence of a religious community. In the church events of my fieldwork, the

examples of doxa were revealed in certain themes: the nobility of pain, faith in God's plan in the face of apparently pointless suffering, and the invisible role of women in changing historical events. These themes underscored the expected fundamental rules for being women. Examples of habitus were evident in the activities that I found confusing as an outsider, but were intuitive to the participants: when it was acceptable to chat amongst themselves versus respectful silence, how close to stand to others, when to approach the Arkansas women, and what kinds of physical affection and support were shared (hand-holding, hugging, hair-stroking, kissing, etc.) Because both *habitus* and *doxa* are subconscious, witnessing them in action in the church setting was evidence that those who practiced them were indeed engaged in a relationship together, in spite of the distance between Scammon Bay and Arkansas, and how infrequently they saw each other. They were gifting each other with comfort and gifting the spiritual world through song and prayer as well as their loving treatment of each other. The woman-to-woman spiritual leadership mixed with peer-to-peer support was a strong example of a gendered dynamic in village life, and reminded me of the peer-to-peer support of the maqiyaraq (the way of steambathing). Both of these intimate gatherings focus on wellness and healing. But church events reveal how Euro-American religious representations continue to exert strong presence and influence in Scammon Bay. There is a gendered component to this influence. When the weather dictates hunting, it is still women who attend mass.

4.7.2 Chuna McIntyre

Artists are another example of secular bearers of spiritual knowledge. At the Cama-i Festival, artist and dancer Chuna McIntyre described a gut item I had never seen. He told me that windows were made of gut, but so was the similar-looking death mask. Both look like a square

of gut, a little more than 12" on a side, made from approximately three rows of sewn intestine. Its purpose is to ease the help with passage after death. "Ease the way, like a filter or a veil," Chuna tells me. "It helps ease the journey because it is translucent. Otherwise the shock might be too much." I asked if maybe there are some death masks in museums that might be misidentified. Perhaps they could they be mistaken for windows? Chuna did not think so, as they would be buried with the deceased and disintegrate. "Hardly anyone knows about them." He knows through the teachings of the grandmother who raised him. Based on her stories and descriptions during his childhood in Eek, he later made one for himself out of seal intestine and sinew. He reflected, "The sound of the dry gut parka...the crackle...would break the barrier...it could be heard in the spirit world." His dance group today uses rolled-up streamers of freeze-dried seal intestine when welcoming the public. When they first come on stage for a performance, three or four streamers are thrown all at the same time, at the assembled audience. "It is a sign of respect. A mutual sign of respect." Dancers would then loosely reel them in and pile them gently to the side. As the performance goes on, one of the dancers might have an opportunity to carefully roll them up again. The streamer of gut used to be tossed out to welcome people at a ceremony. "In very high ceremonial times of the past, they would do that," he explained. Sometimes the gut streamers make a little bit of sound when they are thrown. Eventually, Chuna thinks other dance groups will do this too.

4.8 The Learning Network

Practice theory asserts *habitus* and *doxa* are non-verbal ways of knowing. How are these transmitted and learned? There were three places I experienced intentional knowledge transfer

about making things in Scammon Bay: the household, the school, and the shop. In each place, I saw a combination of verbal and non-verbal teaching and learning.

4.8.1 The Ulak Household

The day I arrived at Darlene's house, she brought out a laptop and showed me two PowerPoint presentations "on things made and used around here." One is called, "PICIRYARANKA, an Ulak Family Production." It was a slide show for a class Darlene taught at the school, featuring images of the family harvesting seal, salmonberries, pike, smelt, and other bounty from the seasonal round. One photo showed her grandson with his first pike. His mother made akutaq with this first catch and passed it around. When Darlene was teaching at the school, she used to process a small navig in front of the class as a demonstration. She would also process gut with the students. "This is our way of life. This is our way. You observe and then you DO. This is how you learn." Darlene is keen to have me learn by doing during my visit, but on the first day she seemed to start with educational formats more familiar to me. In addition to the subsistence presentations, her home also has many books and reference materials about Yup'ik culture and Scammon Bay. Her daughter and I watched two videos together. One was the Oscar-winning 1953 Disney documentary short *The Alaska Eskimo* filmed by Alfred and Edna Milotte. The movie took place in nearby Hooper Bay, and features several family members. Darlene and her daughter described the errors in the movie and the various interesting overlooked details. Those were not blueberries in the akutaq, for example, and poke fish is not "raw." Igloos are not part of Yup'ik culture, and the dancing was sped up for dramatic effect. The other film was *Igloos and* Eskimo Kisses, made in Scammon Bay by visiting student filmmaker Elizabeth Hixenbaugh in 2011. The Ulaks described the errors and misunderstandings of the young filmmaker, but also

eagerly identified and provided more context for the locals who appear in the film. Afterwards, their daughter took me for a walking tour of the village and described the various places and buildings. Quickly, the jumbled visual chaos started to make sense. The colorful shipping containers in many yards are not full of forgotten junk as they might be where I came from in the midwest, but active tidy spaces: shops or sheds where things are made, valuables are protected from the elements, or the subsistence catch is kept cool until processed. A low-slung structure made of mismatched materials with a chimney is usually a *maqivik*, the cherished steambath house. A pile of wood outside it is a good sign it is enjoyed frequently. An added-on porch area of a house likely has a freezer or two, and more subsistence items like grass, skins, or dried fish. Oval-shaped *mayiq* skins were nailed to many houses to dry in this season, and there were racks of drying fish as well as whale and seal meat.

4.8.2 The Classroom

Because the school has many of the wage-paying jobs in the village, it happens to be the employer of many highly-respected and knowledgeable village members. Most of the experts I was introduced to in the village are current or retired teachers or staff of the school. During my visit, a freshly-caught young *maklak* belonging to Charlie and Georgianna Ningeulook went to the school to be processed by kids in science class. This event happened while Annie and the Ulaks were away at the church conference. Georgianna had been told of my interest in intestine, and invited me to attend. Alice Rivers was the Elder brought in by the school to demonstrate how to process the seal. When I arrived, most of the class was on the floor with the seal. There were 25 students, mostly middle school aged. Approximately 75% were participating and 25% were distracted. While some students processed gut, others nearby removed blubber from the skin

with an *uluaq*. Alice alternated between demonstrating both skills. She did not speak much, except to encourage the students, but her hands and body were constantly moving. She peeled the inner sections of the gut methodically from outer layer, calmly and slowly repeating the movement over and over, side by side with a student who copied her actions. Other children watched. Every few minutes Alice would lean over, practically laying down on the floor, to pick up an *uluaq* and deftly take several strokes to gradually separate the blubber from the skin of the seal. Then she would hand the *uluaq* to a student and continue processing gut. One student asked, "Can we do this again next year?" Apparently, it is not a common event at the school. I was struck by the significance of these practices taking place in this specific field. When Alice processed seal intestine on the floor of the classroom, a Yup'ik mimetic way of learning with a bodily component was inserted into the structure of the American school system.

The fifth grade classroom was run by a non-Native woman, and the science teacher was also a *kass'aq*. His first comment to me was that my step-by-step documentation of the intestine was very *kass'aq*. But he also asked me to meet with the students the next day about my research project. Because the scraping of the intestine was not completed in the time available during the school day, the science teacher brought me the remaining unfinished intestine to scrape and soak so the class could inflate it with another Elder at school. I was given permission to record this lecture, but respectfully erased it when the teacher later preferred I not use it. The teacher mentioned *qiaq* and many heads nodded, the students knew this food made from intestine. As the inflating process was described, one child exclaimed, "Eskimo condoms!" The science teacher responded, "You're just being obnoxious but you're right, they used to make condoms like this, but with sheep." As the students got ready to blow up the intestine, the excitement was palpable.

One kid said, "YaYa hold my gum!" Almost all the kids were engaged during this step, and very few were distracted as compared with the scraping step. I was sad to leave Scammon Bay before the inflated guts were fully dried and rolled up. I wondered if the kids would find the material as amazing as I do.

4.8.3 The Shop

A shipping container in the yard outside the Ulak/Williams duplex contains a workshop full of power tools and hand tools. Drew and his dad started the shop in the fall of 2017 for kids who were non-academic and did not play sports, mainly middle school and high school students, both boys and girls. The shop is open three nights each week for kids to make things. Often they make items that can be sold to fund travel to church camp. When I visited at the invitation of the Ulak's daughter, most kids were making jewelry or creatively-shaped *uluat*. The *uluaq* is ubiquitous in Toksook Bay and Scammon Bay, and even in the homes I visited in Bethel. It is the household blade, the kitchen knife, and the cooking knife. It was the household butchering knife for the ptarmigan, beluga, and seal I observed, and even the small personal knife at the dinner table (figure 18). In fact, it began to draw my attention whenever I saw a knife that was not an *uluaq*. I bought two of them from the workshop. Drew told me he has no special skill in making these items, he simply provides access and shows the kids safe ways to use the tools in a supportive environment. He and the kids are "teaching each other."



Figure 18: Lunch of frozen *qaurtuq* (broad cisco, a kind of whitefish) to be eaten raw with an *uluaq* on the cardboard plate. The dish of *uquq* (seal oil) is for dipping dry fish, not pictured. April 2019. Photo by Ellen Carrlee.

Providing training for making objects has been a part of both the Alaskan education system and the art market for generations. Missionary and educator Sheldon Jackson founded the oldest museum in Alaska in 1888 as part of the Sitka Industrial and Training School, a boarding school for Native youth. The school offered training in skills like shoemaking, using a sewing machine, carpentry, and publication using a printing press. Examples of indigenous material culture preserved in the Sheldon Jackson Museum were used to inspire the students with the ingenuity of their ancestors as well as fund Jackson's missionary agenda (Carlton 1999, Lee 1999a). Another example is the Native Arts Center, founded by Iñupiaq artist Ronald Senungetuk at the University of Alaska Fairbanks in 1965 (Jackinsky, 2017). In both cases, skills for making objects was tied to academic training to build capacity for both institutional capital and economic capital. Seal processing in the classroom and *uluaq*-making in the shop, however, seem to have

local ambitions tied more strongly to cultural capital: building the self-esteem and problem-

solving skills of youth who might otherwise fall through the cracks of other learning networks.

4.8.4 Learning in Non-Verbal Ways

In his 2006 book A Yupiaq Worldview, Angayuqaq Oscar Kawagley states, "The modern written

word is useful for many things, but it removes the reader from the human interaction element."

Alice was impressed with my use of words like "tapered" and "brittle." Describing things

verbally is not a typically Yup'ik way. In our conversation, Alice was talking about taking care

of gut raincoats:

Alice: As long as they are stored in a real good place, as long as they are not wet...they don't get wet, and dry in a different way.... Go like this it will break, like glass. You've

seen how dry they can get.

Ellen: Yeah, they get brittle and they tear...

Alice: "Brittle!" See that's my problem... putting words together, like you said,

"brittle"...Yeah.

Ellen: Part of my job is to have a whole bunch of those words. Took a long time to learn

the words to describe some of those qualities...

I asked Alice about transmission of gut-processing knowledge.

Ellen: Did you ever teach anybody to do the gut?

Alice: My daughter, my oldest daughter.

Ellen: She wanted to know?

Alice: She learned. We all learned by watching our mom.

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Ellen: Did she learn when she was a kid?

Alice: Yes.

Ellen: How little?

Alice: When they were growing that's what we do, just sit and watch what she does. Nowadays kids don't have that sitting around and watching, they'd rather watch that kind (she gestures at the television).

Ellen: And did you learn from your mom?

Alice: I learned from my mom.

Ellen: When you were little girl?

Alice: Yes, because there no TV, it wasn't a cartoon... it was a real thing

Ellen: When you made a mistake, would you know or would someone come and say...

Alice: There is no "someone" when you do something, I do it my own way. There is not "someone". If I tear it and it's not useful, throw it away. Animals will eat it, it's not a waste.

Ellen: Did your sisters and cousins, did they learn how to do it too?

Alice: My sisters all learned from my mom. We all learned from our mom.

Ellen: Normal back then, everybody would learn how to do it?

Alice: Was normal yah. Like I say, TV and other stuff... the phones weren't available back then. It was better. We learned more. It's our traditions that we learned. And later on we learned other traditions, like my George Jones! (giggling)

Learning by observing carefully is not to be underestimated. At the Kaganak home one afternoon, Mary and Naaman treated me to a lovely rendition of the gospel song, "Land Where Living Waters Flow." They sang it both in English and a second round in Yup'ik. Later they posted a beautiful video on social media of the duet filmed while leaning on a snowmachine outside their home. Naaman accompanied the song on his acoustic guitar. He told me proudly

that he had been playing guitar since 1969. I wondered how he learned, and he said there was briefly a preacher at church who played the guitar during the worship service. Naaman watched where the man placed his fingers, and then taught himself on a guitar that he had at home. I tried to learn guitar myself as a teenager, a process involving weekly private lessons, books, and written music. I never mastered the instrument and was impressed Naaman had learned simply by watching a very limited example and imitating it. Later, speaking with Harley Sundown about the possibility of a kayak coming to Scammon Bay, he said, "I know some guys who are good with wood, they could copy it." Surprised, I blurted out, "People here still know how to make kayaks?" Harley corrected me, "I said they are good with wood. All they need to do is see it. They would know what wood to use, how to shape it..." I thought back to the gut sewing workshop in Bethel, where the Yup'ik women kept returning silently to a position just behind Mary Tunuchuk's shoulder to observe her thread-making technique. I thought about the descriptions of subsistence food processing I had often heard, where girls spend years doing certain tasks before they are allowed to try their hand at more advanced tasks they have been watching. I realized something new to me...people who learn by observing and copying (instead of reading and asking questions, or blundering through trial-and error) have spectacularly honed skills of perception and copying. This is part of the reason why a traditionally-taught Native person's account of how something is made has special credibility. I used to be skeptical of Native accounts based on observation of Elders. I assumed, "I've never made a pie, but I saw my grandmother make one and I know my pie making knowledge is lousy. Therefore, I am skeptical about descriptions of things seen but not actually done by the source." Now I am convinced that someone trained in the Yup'ik way of learning would indeed be able to make their grandmother's pie, even if I could not.

This insight also impacts my reading and application of Ingoldian theory. As someone whose profession requires artistic dexterity and knowledge of material properties, I had a degree of disdain for some of Tim Ingold's theorizing about "making." I felt his fumbling explorations of material properties and the resulting extrapolations to theory underestimated the non-verbal expertise of craftsmanship, but now I also suspect he underestimates the very foundations of how that expertise is acquired. In his 2013 book Making: Anthropology, Archaeology, Art and Architecture, Ingold describes an assignment he gave his anthropology students at the University of Aberdeen. They would spend a day attempting to make cone-shaped willow baskets inverted in the sand of a nearby beach. "Later they would tell me that they had learned more from that one afternoon than from any number of lectures and readings: above all about what it means to make things, about how form arises through movement, and about the dynamic properties of materials" (Ingold 2013, 24). The book continues with examples of craftsmanship such as making a handaxe, building a house, watchmaking, and drawing. Ingold rightly encourages anthropologists to actively engage with the materials of the material world, and places objects and materials in a "meshwork" of relationships. The inclusion of objects is one of the strengths of the Actor-Network theory I address in this dissertation. Ingold intends his book to "address the gap between practice and the theory of it" (Ingold 2013, 14) but the book argues the gap can be filled by engaging physically with materials and pondering that active engagement. His descriptions of "making" isolate the practitioner from the teacher, and from the relationships generated by the circulation of the creative product. For Ingold, the learning comes from the hands-on active engagement with materials. This approach would limit Naaman's musical ability to his own dogged, solitary interaction with the fretboard and strings of the guitar, and perhaps excludes past acts of focused attention on the preacher in church to learn the technique or the context of

today's loving duets of gospel music in Yugtun with his wife that he shares with his admirers on Facebook. Ingold's emphasis on interactions between humans and the material world might neglect the interactions among people in the network.

The next chapter will describe and analyze my own firsthand experience processing gut with experts in Scammon Bay through the theoretical lens of networks and practice.

Chapter 5 Findings About Intestine

In this chapter I consider a network of practice in Scammon Bay where a robust network of agents still supports limited intestine-making activity. Investigation of intestine as a possible Obligatory Passage Point in the problematization step of ANT translation is a cornerstone of the methodology. The research project afforded participant/observation experience in the processing of intestines from two beluga whales and two brown bears as well as bearded seal, harbor seal, hog, coyote, and Sitka black-tailed deer. From these experiences, the five main steps of making intestine are: 1) procuring, 2) removing outer and inner layers, 3) soaking, 4) drying, and 5) cutting. These steps are universal for all the animals whose intestine I studied and consistent with descriptions in the ethnographic literature (Hickman 1987; Fienup-Riordan 2007; Issenman 1997; Oakes and Riewe 2007; Wilder 1976). Each step builds upon previous steps, and errors will make subsequent steps more difficult, possibly resulting in a poor product. There are three layers to the intestine: muscularis externa, submucosa, and mucosa (figure 19). It is the middle one, the submucosa, that was kept for making clothing, sails, windows, and other artifacts. In this chapter will discuss the steps needed to make a strip of processed intestine suitable for sewing, with a level of detail not previously captured in the literature. Each step will consider agents and networks in detail.

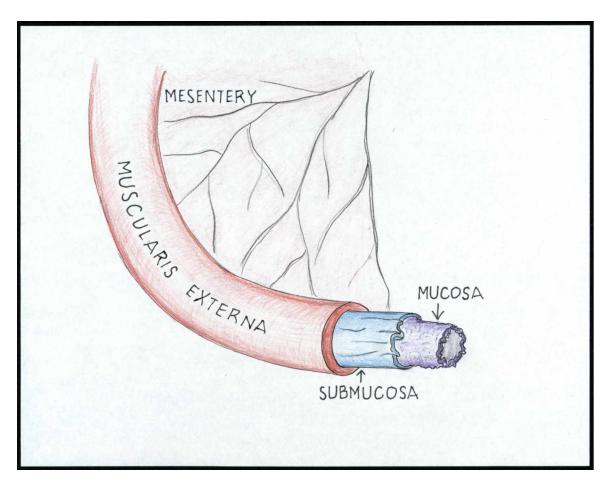


Figure 19: Diagram of the layers of the intestine. Drawing by Ellen Carrlee.

5.1 Procuring the Intestine

In Scammon Bay, the two beluga whales and the *maklak* whose intestines were processed during my fieldwork were fresh and the result of hunting activity by three separate men and their hunting partners. The Scammon Bay word for beluga whale is *cetuaq*, but locals use the word "beluga." No one says "bearded seal" or "ringed seal," preferring the Yup'ik words *maklak* and *nayiq* instead. Preferential use of indigenous words may correlate to structured gifting or to the importance of these animals as agents. Hunter responsibilities regarding intestine include respectful treatment of animal, initial cutting of the intestine from the seal as well as severing the membranes that hold it coiled up, squeezing out the bulk of its contents, and biting the intestine.

Immediate opening of the animal and removal of the intestines slows down the spoiling process that begins quickly because of the concentration of bacteria and enzymes in the gastrointestinal tract. Freshness is a factor that influences the agency of gut, and the intestine in Scammon Bay was the only gut I experienced fresh.

After the hunter removes the intestine, the mesentery must be cut. The mesentery is the thin membrane that holds the curves and coils of the intestine bunched together and compact inside the body (figure 20). The function of the mesentery, in addition to holding the intestine in place within the body, is to supply the intestine with blood, lymph and nerves. Parts of the mesentery extend *through* the outer layer to connect with the middle layer. If they are cut or pulled too aggressively, a hole in the valuable middle layer could result. If they are not trimmed off, the outer layer cannot easily be removed. If a hunter knows the intestine is not intended for a use beyond food, the cutting of the mesentery is done roughly, and the intestine may be torn and have holes. If the middle inner layer of the intestine is to be kept for sewing, fine trimming of the mesentery is often left up to the women at home. Gemma Akerelrea is the only source who reported the mesentery can be eaten, saying it can be served boiled or half-cooked. While edible, this tissue is rarely eaten.



Figure 20: Mesentery tissue of *maklak* to the left, containing blood vessels and nerves, April 2019. Photo by Ellen Carrlee.

Once the intestine is freed from the coiled shape by severing the mesentery, the contents of the gut must be squeezed out from the tube. Since the intestine is very smooth and slippery, a

dampened fist can be held at one end and the entire length of intestine pulled through it to easily empty the waste. *Cipegtet* is the word used for squeezing out the slime to clean the intestine.

Finally, it is necessary for the hunter to bite the intestine. Scammon Bay hunter Harley Sundown described, "...bite the intestines every foot or so, it makes it easier to separate the inside and the outside membranes....That might have some kind of reaction that happens...bite but not puncture." His sister Alice Rivers comments, "You know why they bite it? So it will be easy to come off. If you don't bite it, it's stuck to the inner part." Gemma Akerelrea concurred: "When they first catch it, they open up the belly take out intestine, and bite on it so it will be easier to clean." In her interview with Ann Fienup-Riordan, Neva Rivers of nearby Hooper Bay described bearded seal intestine, "Ones that have been bitten are very nice and easy to handle...the ones that haven't been bitten are stiff." (Fienup-Riordan 2007, 150).

In the procuring step, the field of practice is outside the home, at the ocean. This gut processing network includes the actions of the hunter. In particular, the biting step was not known to the members of my museum network, in part because the hunters and the animals were not part of that network. For the hunters in Scammon Bay, the biting is not considered unpleasant or strange, partly because the outer layer of the intestine (a muscle) is cooked and eaten as a delicacy known as *qiaq*. For the non-Native brown bear hunting guides who donated the bear gut I worked on with Sven Haakanson in Seattle, the biting step was not done and removal of the outer layer was not as easy as removal of marine mammal intestine in Scammon Bay. The thinner outer layer of bear intestine is removed by scraping, and not by peeling in large pieces as is common with bearded seal and beluga. Biting intestine may be perceived as disgusting in

Kodiak today, since bear intestine is not currently regarded as a food item and bear hunting guides are often non-Native. Another reason might be the prevalence of trichinellosis roundworm parasites in bears (Woodford 2014). Freshness may also have been a factor, as the Kodiak gut had been previously frozen for transport. This first step of *qiluliuryaraq* (processing gut) in Scammon Bay emphasizes the connection to the food network. If parts of the intestine were not edible, and in particular if *qiaq* were not delicious, perhaps no one would still process gut in the village.

Benjamin Charles at the Yupiit Piciryarait Museum in Bethel mentioned that some hunters would make use of the contents of the animal's gall bladder after butchering, rubbing the acidic gall substance on the hunter's hands and also on the gut. Charles reports the gall had an antiseptic property that would speed healing of any micro-abrasions on the hunters' hands as well as slow down the deterioration of the gut. Some people still do this with the moose and the moose butchering as well.

Alice Rivers reported, "It is clean before we get it. Men have to clean... sometimes they tell me there's...what do you call those with tails? Shrimps inside. Even in walruses... there is always clams." Darlene Ulak stated, "My *nayiqs* always come gutted, my *maklak* intestines always come braided." It is the responsibility of the hunter to do the initial butchering of the animal and deliver the parts, including the organs, to his wife or the woman of the house. The two beluga intestine I saw delivered to the wives' homes were in the bottom of plastic totes with other organs on top of them. Perhaps the intestine was at the bottom to prevent it tangling around other organs and cuts of meat, or perhaps it helped keep the intestine moist and protected. No matter

when it arrives, the intestine will be addressed by the woman of the house. It will be put in a container like a metal basin and covered with cold water. Even if it comes late at night, processing will begin immediately and the work will done that night, at least the first few steps.

5.2 Removing the Outer Layer (Muscularis Externa)

In the next step, the field of practice moves to the kitchen and the practitioners are women. First the inside of the intestine will be well-rinsed to remove whatever waste products are still inside. This helps keep the process sanitary and avoid unpleasant odors. The rinsing is usually done at the sink with a flow of water:

Ellen: When you first get, and you want it to be cleaned...do you put water through it?

Alice: Right there put it under the sink. Run the water and just go...rinse it all out yah.

Darlene Ulak described once seeing two elderly women in Chevak working on gut. On one end, a lady was using the spout of a teapot to pour water into the gut, and each lady would squish it down to the other back and forth repeatedly to wash it. Darlene puts hers in a stream to wash it out. Scammon Bay is blessed with a fresh water stream in the village. Once it is cleaned, the length of intestine is submerged in a container of water and work begins to remove the outer layer. The bulk of the gut is kept submerged in the bowl of cold water and small sections are pulled out at a time. Dipping it frequently keeps it slick and helps the layers come apart more easily.

Scientifically, the outer layer of the intestine is called "muscularis externa" and is smaller in diameter than the middle layer, which is bunched up within. This allows for peristalsis, the

squeezing motion that moves a bolus of food along through the gut. The middle layer is mauve (reddish-purple) and collapsed-looking. The outer part is whiter, thicker, and a little more rubbery than the middle part. The left thumb may be inserted between the outer and middle layers, and the right hand can gently pull the rest of the intestine through it, somewhat like removing a sock. Poking with the thumb is the gentlest. The outer layer may turn inside out or it may break into in tubular pieces. Aim to hold the collapsed reddish-purple part in your left hand and the other in your right. Wrap your right hand around the inside-out part right at the folded-over edge, push it down to peel it away from the inner layer you are holding in your left hand. The two should separate nicely, with a sound and tactile sensation similar to peeling an orange (figure 21).

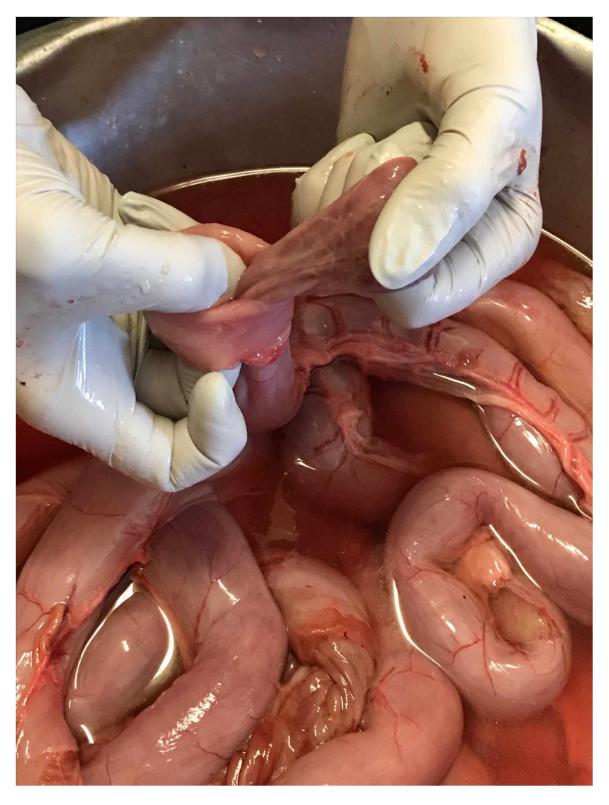


Figure 21: Removing the outer layer from the intestine of a young beluga, April 2019. Photo by Ellen Carrlee.

The outer layer may bunch together during peeling, requiring attention to slide it out of the way. Sometimes there will be holes or losses or tears in the outer layer. It will not come off in one piece, and there might be overlapping pieces of the outer layer one on top of another. Also, the mucosa (innermost layer) will begin to come loose, and might make a bulge in the intestine just past where you are working. At home, this work is typically done on the floor of the kitchen with a piece of cardboard to protect the floor. After the outer layer is removed, the intestine will look bigger. In Scammon Bay, the outer layer of the beluga and maklak intestine is always kept and eaten (figure 22). "It's like the prize," remarked one young woman. It is a commonly known food, and people readily used the familiar word *qiaq* but Darlene Ulak cautioned me to be careful with pronunciation, as it can also mean "cry." If this outer layer is the only layer used, it might be efficiently removed from the intestine with a longitudinal cut using an *uluaq* and peeled away from the middle layer. It is approximately 1/8" thick, perhaps the thickness of a slice of bologna or other thickly-sliced deli luncheon meat. Likewise, qiaq is a meat and can be cut with a scissors into small square pieces and boiled or "half-cooked," often in organ soup. It curls up into small, attractive gray curls during cooking. Yup'ik people use the word "crunchy" to describe it, but the mouthfeel is more chewy, and a sensation as if something inflated has been popped. There is crunch noise but not the feeling of crunch in a crispy sense. Raw maklak makes even more crunch, they say.



Figure 22: The outer layer of muscle after removal from the young beluga intestine. This will be cut up, cooked, and eaten as *qiaq*. April 2019. Photo by Ellen Carrlee.

Challenges to gut processing specific to life experiences of individual animals emphasize their role in the network. At the Kaganak home, Mary and I attempted to process beluga whale intestine from an animal freshly caught by Mary's husband Naaman and their future son-in-law. Mary mentioned, "This is the first time he caught a beluga in April...usually it is June or July."

Mary was experienced at processing beluga intestine, but this particular intestine was difficult to process. The outer layer was more than a quarter-inch thick, "really thick" according to Mary. We tried to peel it off, but there were tissues holding the layers together that we could not sever with just our fingers. We trimmed the mesentery a second time, but that did not solve the problem. Naaman confirmed it was bitten (Mary remarked it has to get bitten every yard or so) and even carefully slitting it lengthwise with an *ulucaq* and working together was difficult. After a longitudinal cut, I held the outer layer while pulling it taut, and Mary held the other layers and severed the tenacious tissues. After 18" of this tricky effort, we tried to scrape the inner mucosa from a section and found the middle layer to be unusually thin and easy to tear. They surmised it might have been because the whale was a mother, and hormonal factors may have been at play. The baby beluga was not inside the mother but there was milk inside her body. "We didn't know, or else I wouldn't have shot it...I was disappointed" said Naaman.

This was not the only time an intestine was challenging to process. Mary described how once she and Naaman needed to work together when the outer layer of a *maklak* was tenacious. She pressed her rubber boot on a loosened part of the outer layer and Naaman was able to pull successfully on the rest. That time they just wanted the outer layer to eat, they were not focused on the integrity of the middle layer. One of the bear intestines Sven and I processed from Kodiak had a large clump of fish bones in it and was riddled with holes. Another experienced gut expert in Toksook Bay reported having an intestine recently that tore too easily and she had to throw it away. Natural materials have considerable variability, and their quality can be unpredictable, even for skilled practitioners. In these examples, the physical qualities of the gut and the challenges of processing it clearly illustrate the influence of an individual animal (perhaps a

mother whale or a fish-eating bear) as well as the actions of the hunter and the partnership between the hunting husband and the processing wife.

Removal of the outer later, the prized food item, is done immediately for freshness. That step will not be postponed. But once it is removed, there may be options for delaying other steps.

Several people I met mentioned having "gut in the freezer" until they had time to finish the work or the weather was better. Darlene cautioned that foods continue to change and deteriorate in the freezer. Because it tastes different over time, she knows it is changing. Alice commented on gut in the freezer:

Ellen: So if you are doing the gut and you need a break or you're hungry is there a good stopping point?

Alice: There's always a stopping point because it's not going be there overnight... we'll still finish it.

Ellen: OK, and if you have it all scraped then you could put it in the freezer?

Alice: After it is all...Mom rinsed it out lots of times and then... I don't know how she did it, we didn't have freezers back then. But when springtime came, lots of women were out drying those.

5.3 Removing the Inner Layer (Muscosa)

At this third step, the submucosa (middle layer) is visible and the task is to remove the lining inside it, a task more time-consuming than removing the outer layer. Scientifically, the inner layer is called the "mucosa" and it lines the empty space at the center of the intestine. It is squishy, slightly slimy, and formless. It is given support by the "submucosa", the middle layer of gut kept for sewing. Several people reported the innermost layer is also good to eat. It must be washed thoroughly to remove any traces of waste products and can be eaten boiled with seal oil

or put into soups. Like the *qiaq*, it is also described as "crunchy". When we removed it from the beluga intestine, Darlene saved it in a large plastic bag (figure 23). She commented that some women cut the intestine open longitudinally to scrape out the inside to eat, but the submucosa is no longer usable if it is cut this way. While many people mentioned this food item, no one seemed to remember the Yup'ik word for it. Jacobsen uses the word akutauqmak for a "mixture of seal intestine tissue and seal oil" (Jacobsen 2012, 1124). Unlike the outer layer, the innermost layer is not commonly eaten today. Darlene mentioned that different villages have different words for parts. "Even here, Hooper, Chevak...villages really close to each other they have different dialects" she explained. In a 2003 interview with Ann Fienup-Riordan, Yup'ik Elder Frank Andrew of Kwigillingok stated, "The intestines have *tairet* (linings) that they remove, using their fingernails and not knives. They remove their tairet carefully so they would not [have a hole] and deflate [when they inflate them]. Then they eat the taiq (lining) raw or immersed in hot water, and they are crunchy and very delicious" (Fienup-Riordan 2007, 150–152). His mention of the use of fingernails suggests he is describing the outer layer, but the translator uses the English word "lining" without specificity, reflecting the challenges of describing knowledge that is mostly known non-verbally. In 1997, while examining museum objects in Berlin, Paul John from Nelson Island indicated, "...once the taig comes off, its edible. One could cook it and eat it." Marie Meade clarified, "When the outer layer of the intestine is removed, you'd say tairniluku. And once the taiq was removed, you'd call it qiaq. It's very delicious." (Fienup-Riordan 2005b, 141).



Figure 23: The scraped regions of the gut are usually paler, and the formless inner layer is saved in a Ziplock bag to be used in soups, April 2019. Photo by Ellen Carrlee.

Alice: We could cook it and have it and you take it with lots of *uquq* ...lots of seal oil. Even the inside if it is clean enough you could have it raw, that one we take off on the inside is added to the soup we make.

Ellen: What else goes in that soup, anything?

Alice: We boil the meat from stomach with fat we boil that. Even from the stomach we skin it chop those up, part of the lung is used...

Ellen: All in the same soup?

Alice: Yah, I cook mine in two different pots so the soup won't be bloody it will be white from what we took from the outside. And then after those meats, the lung and other part is done we take it out of the other pot and put it in with the other soup, so wouldn't taste all the bloody stuff, we'll taste only what we want to have.

During the scraping step, the length of gut can again be kept in a container of water during the work. In Scammon Bay, work is done on the floor of the kitchen and a smooth cutting board is helpful.

Ellen: When you use the spoon, do you use it on a piece of wood or a board?

Alice: I have one, what do you call those?

Ellen: A cutting board?

Alice: Yah.

Ellen: Could it be plastic or any kind?

Alice: Any kind...it has to be smooth, if we have it lumpy it will tear it.

Darlene used a wooden cutting board (a 12 x 18" piece of quality plywood) and a sturdy thick tablespoon with a blunt edge. She demonstrated smoothing the gut a little bit flat on the board, and then began rubbing lengthwise along a section of the intestine in short parallel strokes in one direction while pressing gently against the cutting board. This loosens the innermost layer from the intestine and it becomes like a lump of food moving through the tube (figure 24). Working with the edge of the spoon in 12" sections is most effective. Before scraping, the gut looks

mauve or reddish-purple in color, but when the lining is removed and pushed out of the way, the scraped area is a lighter creamy pink color and less bulky. The layer of gut retained is semi-translucent, and the practitioner can both see and feel the progress made. To clean the inner surface evenly, the flattened intestine can be slid over itself, rotating all the surfaces for scraping.

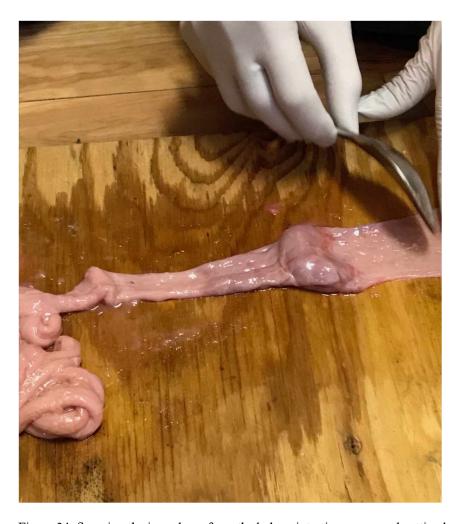


Figure 24: Scraping the inner layer from the beluga intestine on a wood cutting board using a spoon. The bulge inside the tube is the inner lining material that has been scraped from the area below the spoon, April 2019. Photo by Ellen Carrlee.

Ellen: And you do a little bit at a time?

Alice: Not all, like that outer part... we do it in a certain length.

Ellen: Then there is like this chunk inside, how do you get the chunk to the end, do you just take your hand and squeeze it out?

Alice: Yeah, just keep going. Yah, just keep going we don't stop until it is out.

Ellen: And so you do this much, push out, then this much more, and push it out?

Alice: No, when it is done I take all of it out all at the same time.

Ellen: So you scrape along, scrape along, all out at the end, one time take it all out? Oh! That would go so much faster! I just did each one, each one I sent out the end...

Alice: There's no certain way, there's no rule in how to do it. You could do it your way I'll do it my way.

Most people use a spoon for scraping nowadays. Rita Pitka Blumenstein from Tununak described scraping the intestine with a clam shell (Hickman 1987, 26). Francis Charlie reported Scammon Bay people sometimes used a wooden spoon or a wooden story knife. Several years ago, Glen Simpson (Tahltan-Kaska professor emeritus of Native Art at the University of Alaska Fairbanks) shared images of ivory gut scrapers he acquired from a St. Lawrence Island Yupik estate in Savoonga. They are curved and asymmetrical, but very similar in size and shape to "spirit bowls" meant for a favorite food of the deceased to be taken up a mountainside and thrown in the air⁶. To distinguish it from the gut scraper, Simpson was told the spirit bowl was symmetrical and pointed at one end, like a boat, for the spiritual journey (figure 25). Like the description of the gut death mask, this account of a gut-processing tool associated with spiritual journeys illustrates the inclusion of gut and gut processing in spiritual networks as well as the knowledge held today by artists as secular sources about these spiritual networks.

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⁶ Simpson, Glen, (Emeritus Professor of Art, University of Alaska Fairbanks), email message to author. Juneau, Alaska. 2015.



Figure 25: Group of four St. Lawrence Island Yupik walrus ivory gut scrapers and one (dark) boat-shaped ivory spirit dish to convey food to the dead. Image courtesy of Glen Simpson.

This scraping of the inner layer takes a long time. Darlene's demonstration took place during the weekend, and while we scraped, Johnny played guitar and sang hymns. Their eldest daughter was also visiting, and she sang along with Johnny, Darlene, and Annie. After a while the women left to go visiting, and I stayed behind to scrape the rest of the intestine. Although I worked diligently for nearly two hours, I feared Annie would chide me for not being done yet, but she did not. In fact, Darlene and Annie suggested I take a coffee break with them. During the scraping step, if a hole is made or found, the gut was cut in this location and the smaller segments can be individually worked. After the inner layer is removed, the scraped gut is rinsed again to flush out any remaining material from the inside. Forcing water through the gut reveals holes wherever it spurts out.

Scraping the mucosa "blind" through the submucosal layer is not the only way to remove it.

Iñupiag skin expert Edna Wilder mentioned, "...they turned it inside out to remove the inner

lining" (Wilder 1976, 16). Sven Haakanson inverted the gut to remove the inner lining of bear

intestine, but inverting was not described by any of the Yup'ik people I spoke with at any stage

of my fieldwork. I mentioned to Darlene that I had a hard time scraping the inner gut when I was

working with Sven, and she thought it was a likely matter of freshness.

The physiology of marine mammal anatomy was surprising to me:

Ellen: The human has a large intestine and a ...

Alice: Small intestine...yah

Ellen: But not so with the seal and the whale?

Alice: They are all one.

Ellen: That gets a little smaller as it goes...

Alice: yah, that is how I have seen it...when I clean it. We're different, even though

we're animals.

In a relational ontology sense, this comment from Alice evokes reflection about Descola's

description of Yup'ik culture as "animist," seeing animals as physically different but with a

similar interiority. While searching for evidence about networks and agents, a focus on gut

processing provides less data about animism than a focus on hunting provides.

In the scraping step, the importance of intestine as food is emphasized, not just as human food,

but perhaps even spiritual food for the ancestors. Also in this step, more than any other, the non-

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verbal bodily knowledge of how to remove the inner layer is evident. The visual appearance and tactile sensations provide confirmation the step is being done correctly, and this is much easier to comprehend by experiencing it physically firsthand.

5.4 Soaking

Darlene indicated the next step was to rinse, inflate, and hang to dry. We cleaned the intestine in the kitchen sink and the rinse water started out very pink. We would fill about 12" of the tube with water and work it through, then repeat over and over (figure 26). Looking for spurts, we saw two close to each other, and cut the gut there. Darlene stated she often cuts her gut into workable pieces instead of the whole thing, and called it the "modern" way.



Figure 26: Rinsing and testing the scraped beluga intestine for holes, April 2019. Photo by Ellen Carrlee.

Soaking and changing the water frequently is a critical step in the processing of intestine for sewing. Alice Rivers noted, "So the best thing to do when you want to do something with the guts is to change the water often. Keep changing the water." Catherine Moses of Toksook Bay instructed, "Changing water until no more red comes out. The gut will get white when it is

ready." Gemma Akerelrea stated, "...soak it in water but you have to change the water every day until the blood is gone." This stage could be quite long. Mary Kaganak indicated it had to be soaked "until it gets really white" and she once had gut soaking all winter, not frozen but kept very cold on the porch. Some people recommend soaking in a brine, made by adding salt to the water each time it is changed. At Darlene's house, we changed and salted the water several times over a 24-hour period. The more often the water is changed, the faster the gut will release the blood and become white. However, it seemed that simply rinsing aggressively would not remove the blood all at once... soaking over time was necessary (figures 27-28). During a 2009 consultation with the Smithsonian, St. Lawrence Island Yupik Elder and skin sewer Estelle Oozevaseuk described processing *maklak* intestine:

When done, we put them in water to try and swell them up – my grandma taught me to fill them up with water and go like this [lightly tip bowl back and forth]. And they get waterlogged. Then we would wring them, and the water turned red. And we changed it [water] so many times, so many times, until the water turns clear...ones that had not been cleaned in the water [enough] turn out to be a kind of yellow or reddish color. (Smith et al. 2009, 79–80).



Figure 27: Pot of scraped *maklak* intestine, still pink with blood, ready for soaking. April 2016. Photo by Ellen Carrlee.



Figure 28: Pot of scraped *maklak* intestine, much whiter after prolonged soaking and rinsing to remove the blood. April 2016. Photo by Ellen Carrlee.

Theresa Moses told Ann Fienup-Riordan in 2003 that preparation of seal intestine on Nelson

Island in the spring involved soaking in unfermented (fresh) urine after scraping to help remove

the blood (Fienup-Riordan 2007). Rita Pitka Blumenstein mentioned, "...soak it in urine

overnight. Then you take it out and rinse it again, and you put it in a soap solution. In my time

we used Naptha" (Hickman 1987, 26). Gemma Akerelrea also described using Fels Naptha soap.

Long ago, Annie Don processed gut using her boy's urine. Someone in Mekoryuk later taught

her how to use salt water for soaking. Freshness and salting both aid in preventing degradation of

the tissue. Salt impedes bacterial action, and cold temperatures slow chemical reactions. But salt

was not always used:

Ellen: So you said you didn't use salt or urine?

Alice: Nothing like that.

Ellen: Did you ever use soap?

Alice: No

The extended soaking step, like the biting step, has been missing from the efforts to process gut

in the museum network. The reason soaking is missed relates largely to the time limitations of a

classroom or academic setting. Because processing gut in those settings is a special project, the

"lesson" is forced into a compressed time frame.

5.5 Drying

When the intestine is ready to dry, it must be inflated like a balloon. Inflating can be done

directly with the mouth or with another implement (figure 29).

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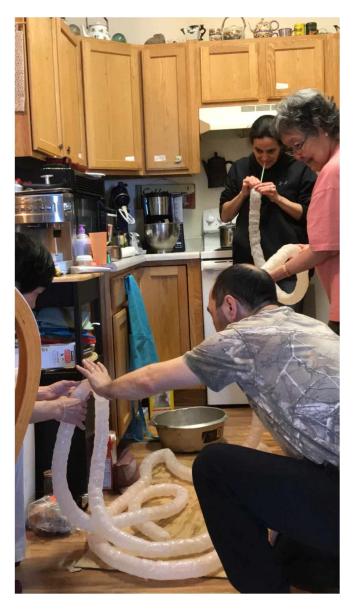


Figure 29: Inflating a section of beluga whale intestine in the Ulak kitchen, April 2019. Photo by Ellen Carrlee.

The intestine can be wrapped around a straw and blown. Darlene mentioned using a bicycle pump. She was embarrassed when the neighbors saw her using this non-traditional technique, but they laughed and sent their son over to help her pump. Ann Fienup-Riordan reported, "In the past, inflating the gut was hard work, but some clever women today use bicycle pumps" (Fienup-Riordan 2007, 150). Sven Haakanson also used a bike pump to inflate the bear gut we processed in Seattle (figure 30), but for the final topping off he used a carved a wooden implement much

like a float plug with a stopper. This spool-like item has a circumferential groove to hold a length of string used to secure the gut around it at the opening of the intestinal tube. He made the plug in order not to waste any of the gut because tying the end might lose several inches. A carved stick the size of a pencil could then be used as a stopper.



Figure 30: Sven Haakanson, Jr. inflating bear intestine in his Seattle yard using a bicycle pump, June 2016. Photo by Ellen Carrlee.

Theresa Charlie mentioned there were all girls in her family, she was often the baby sitter. "Girls blew up the gut. It was a lot of work to blow."

Ellen: ...so you're blowing it up, and you can just hold the end on your mouth?

Alice: Just like blowing up a balloon.

Ellen: What happens when you need to take a breath, you just hold it shut?

Alice: Hold it just and start over again. Sometimes the air comes out but we'll still keep going.

This step perhaps evokes the breath in the way bladders were inflated in the past and the sense that the soul is in the breath. If Yup'ik people of the past had a sense of breath as spiritual, and gut as a spiritual material, the inflating step of an animal organ likely was a solemn and joyous step, gifting the organ with life. In a Yup'k society that viewed animal souls as reincarnating through the bladder and the reinflating of seal bladders as a sacred step in the Bladder Festival, it is plausible that over several generations this spiritual aspect of inflating an animal organ may have been forgotten but the gravitas and respectful demeanor a young girl might have observed in an older woman doing this task could have been passed on. If the spiritual meanings were not passed on, but the *bodily hexis* was passed on, perhaps this is part of why gut is still a special material but the exact reasons are not easily verbalized.

Alice Rivers reports that tying off is the hardest part, but "I found out you could tie with dental [floss]...I don't know they do it back then...Dental floss is waxed and when you tie it up it stays tight. And then you don't just tie you fold it how many times to tie it down really tight so the air won't go out." Darlene emphasizes the tube must be completely inflated, very full and taut. Fat and tight! The wet intestine must not touch itself when drying, or it will adhere. Wrinkles in under-inflated gut allow the material to touch itself, and the folds will be stuck together. This problem is difficult to correct, even with re-dampening.

The beluga and *maklak* I processed with Darlene were hung to dry under the old school, an outdoor area surrounded by a chain-link fence. Herring on string and bearded seal skin were also

drying in that location, just across from the Ulak home. The fenced-in area prevented local dogs

from disturbing the drying bounty. Some people in Scammon Bay reported laying the intestine

on top of tall grass or willow bushes, tying the ends in place to prevent it from blowing away.

Ellen: Where did they put them when they are drying?

Alice: Up on the mountain, on the bushes...hardly anything when they did it, not many

houses, just a small village.

Ellen: When you're out at camp, you said you put it out on the grass?

Alice: Yes they are tall out there just put it on top...

Gemma Akerelrea remembers gut drying, "... on the willow, or outside the house, tied on the

nail. I remember they were straight but on the willows they were kind of curvy." Intestine

naturally wants to curl, as it does in the body, but if it is tied at the ends it can be encouraged to

dry as a straight tube. If it is not straight, the next step (cutting) will introduce complications.

Catherine Moses of Toksook Bay advised, "You'd blow it up, must stretch it STRAIGHT and

not curved or it will dry that way."

Ellen: When you lay it out to dry on the grass and stuff, you don't have to pull it straight

vou can let it be curved?

Alice: Nah, you gotta pull it straight! That's what mom did ...like this...

Ellen: Should be straight...

Alice: So it will be easier to roll!

Ellen: What about the weather?

Alice: It has to be like this so it will dry, so you have to pick a real nice day to dry...

Ellen: A little breezy? Cloudy?

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Alice: Sun shiny

Ellen: Not too much wind or it will blow away right?

Alice: No, we tie it, I tie mine.

Blumenstein describes, "...go outside when it's not windy, but breezy and sunshiny and go to the

fish rack where you're going to hang it, and you blow into it with air" (Hickman 1987, 26).

5.6 Cutting

The dry tube can be cut open with scissors to yield a long flat strip of gut suitable for sewing. If

the intestine has dried straight like a cylinder, the cylinder can be flattened and a crease easily

made. Alice Rivers describes, "When cut, make a crease so you can cut straight. That marks the

line to cut on."

Ellen: When it is ready to cut it open, ready to cut it then like, the tube,

Alice: Cut the ends off where we tie it...with a scissors we cut them...

Ellen: Not with an uluag?

Alice: Not with an *uluaq*. They had scissors long ago, mom had scissors

Ellen: Hard to cut it straight?

Alice: No. As long as you have a crease on it.

Ellen: You just follow the crease?

Alice: MmmHmm [nods]

The crease serves as a guide for cutting the tube open straight, and the strip of gut will be tidy

and uniform. It will be easy to roll up, and the later tailoring and sewing steps will be simplified.

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If the edges are irregular, it is harder to make clean seams without wastefully cutting off material. A clean line can be made by slowly cutting along the fold with a scissors, opening and closing the blades with careful, precise movements (figure 31). Hurrying or sliding the scissors along to make the cut is not recommended, as the blades can snag unpredictably and cause the gut to tear. A ragged edge is also more at risk of propagating a new tear.



Figure 31: Darlene Ulak demonstrates cutting beluga intestine along a crease, April 2019. Photo by Ellen Carrlee.

If the intestine dries with curves in it, complications are introduced. When a curved piece of intestine is flattened, a choice must be made to cut on the inner curve or the outer curve. In either case, a flat strip will not result. This is difficult to visualize because so few things in the

manufactured world are made as a curved tube, inherently containing more material on the outer curve and less material on the inner curve (figure 32). Garden hoses, bicycle inner tubes, telephone cords and other long, soft tubular structures are manufactured as a straight tube and forced into a curve for storage or use. If the gut tube is curved, what side of the curve should be cut? If you flatten it to make a crease, but the tube is curved like an S you are doomed to cut both inner and outer curve and you won't get a flat strip. Cutting the inner curve (the place where the mesentery had been attached) will result in a strip of gut that has more material down the midline and less along the edges, creating lumps and bulges of bowl-like geometry. When they are sewn into a raincoat, these may appear as billows and bulges. This may be a cultural choice, since raincoats made by St. Lawrence Island Yupik practitioners sometimes have this appearance. Could this be because the gut had to be dried in cramped conditions? For example, an early illustration by Louis Choris shows men wearing puffy raincoats and coils of gut drying inside a St Lawrence Island house (figure 33). If the gut is cut on the outer curve instead, this results in less material down the midline and more along the edges, giving a strip with ruffles along the sides. A strip cut on the outer curve may appear semi-translucent with a noticeable opaque white region down the midline. The white stripe corresponds to the location where the mesentery had been attached at the inner curve of the intestine. Presence of the white stripe indicates the gut had been cut along the natural outer curve, but this white stripe is not always present and the intestine is thinner in this area.



Figure 32: Freshly scraped brown bear intestine, demonstrating the excess material of the outer curve of the tube and less tissue on the inner curve (stretched between the fingers at the top). June, 2016. Photo by Ellen Carrlee.

These extremes resulting from curve geometry are not especially pronounced in gut made by Yup'ik experts, as the gut is usually laid out straight when drying. Yup'ik women seem to prefer a cut along the outer curve, or where that curve would have been if the dried tube is straight.



Figure 33: Detail from print, *Vue Interieur d une Maison dans l iles St Laurent* 1822 Ludvig Choris, Alaska State Museum collection V-A-486.

In 2002, Yup'ik Elder Agatha Nevak told Ann Fienup-Riordan, "The thicker side is easier to sew because it can be stretched as it is sewn, and it gets bigger...When the intestine dries, the back side is tight and the other side is loose. Cut it on the loose side and open it up. When it is cut, roll it up" (Fienup-Riordan 2007, 152).

Gemma Akerelrea confirmed that the intestine of the beluga and the *maklak* are processed (and eaten) just the same, but the beluga intestines will be bigger and wider. "They put that whale intestine under the arms, thicker and stronger, even though you use your arms, it's not going to tear." (Gemma demonstrated by pumping her arms as if running or paddling). Other Yup'ik cultural experts like Chuna McIntyre and Annie Don had also mentioned this was sometimes done, but Alice Rivers was not taught to put anything different under the arms like walrus or fish skin or whale. It was just all the same gut:

Ellen: Are maklak and beluga pretty much the same, to make that intestine?

Alice: Yeah I think so...

Ellen: If you went to a museum and you saw a beluga rain parka and a maklak rain parka, and they were the same size would you, with your eyes, know the difference?

Alice: No, no...they look the same to me

Ellen: So it would be hard to tell.

Alice: I wouldn't go up and smell so you see...which one is the *maklak* which one's the beluga, because it will have no smell.

The piece of young beluga whale intestine I processed with Darlene was 54 feet long, and only a third of its full length. The entire beluga whale intestine would have been at least 150 feet long.

Mature adult beluga whale intestine would be even longer. The resulting finished beluga gut strip

was 5" wide, while the small section of mother beluga whale Mary and I were able to process was 8 ½" wide when finished. In comparison, the *maklak* example was 4 ½" wide and our Kodiak brown bear in Seattle had been 4" wide. Under ideal conditions, I calculate I would be able to make a roll of seal gut on my own from an adult bearded seal in approximately 60 hours. This would include 12 hours of intermittent labor on the fresh material with 24 hours of soaking and 24 hours of drying. An experienced practitioner could likely produce gut in half that time if she had no interruptions. In the *field* of Scammon Bay, several factors became obvious in the hands-on processing of sea mammal intestine that had not been apparent in the institutional *fields* I had experienced. These will be examined in the next chapter.

My own physical engagement in the steps of processing gut allowed me to both experience my own bodily dialectic with the material as it underwent change, as well as focused my attention on the specific agents gut engages in each step of its transformation. Gut carries with it the memory and potential of relationships with each step of its processing. For example, while the hunter is not usually present for the steps to separate the layers, the gut is part of the connection between hunter and the person who scrapes the gut. Careful cleaning anticipates he will later enjoy eating some of those layers, or perhaps (in the past) wearing one of those layers. Thus the actions are done with precision and accuracy. The physical acts are gifts. While the live animal and the person who inflates the gut might never meet, inflating gut (or the crop of a bird) once held a special significance in the relationship between the two, since breath was once considered spiritual. Gifting the intestinal tube with breath is a demonstration of respect. Pondering each step allows consideration of how the network of relationships has changed. Who is the recipient of the gift of respectful breath?

Chapter 6 Analysis of Agents in the Network

In this dissertation, I argue that an anthropological approach based in practice theory and relational ontology helps explain a question of cultural material obsolescence and revitalization in a way that contributes to the understanding of a cultural group beyond mere utilitarian and deterministic explanations. It is undeniable that marine mammal gut is rarely used among Yup'ik people today because of performance advantages of commercial materials such as Gore-tex, nylon, and glass. But the absence of gut in the material culture of today's Yup'ik people is also connected to obsolete spiritual properties associated with the historical use of internal organs as well as changes to subsistence networks. Continued pockets of knowledge and transmission of gut working skills can be analyzed through the practice theory concept of capital. I claim that the obsolescence of gut as a material of material culture indicates a change in relationships among humans (both Yup'ik and *kass'aq*), sea mammals, and beings in the spirit world.

During my fieldwork, using gut as the focus, I tried to imagine a network of relationships extending in all directions. I imagined the agents in the network as people, animals, or objects and I tried to visualize a back-and-forth relationship where each influenced the other. Fieldwork observations suggested two agents I had not anticipated: weather and beings in the spirit world. My expectation that gut as a material ought to be considered an agent in the network was not supported by fieldwork, but instead gut seemed to be what Alfred Gell calls an "index," or a vehicle for the agency of another actor. In the past, the actor whose agency was transmitted through gut might have been the marine mammal, whose willingness to give itself to the hunter might be based on its awareness of proper treatment of its gut during processing, cooking, eating, and manufacture of items made from gut. The soul of certain deceased animals were once

thought to be reincarnated through the appropriate treatment of the bladders in which they were contained. Spirit agents also might have channeled their influence on the human world through gut, particularly as manifested in gut parkas used by shamans. It seems gut as an index of agency might have gone both ways between shamans and spirits, with human actors using gut parkas and drums to assert agency in communication and protection. Similarly, gut was an intermediary in negotiating the agency of humans with the agents of weather such as sun, wind, and rain. I argue that the *material* of gut on its own is not an agent but instead acts as an "index" to pass on the agency of another actor.

6.1 Weather as an Agent

Weather was the main reason the fieldwork observations are mainly from Scammon Bay and not Toksook Bay. Weather and the environment are influential agents and deserve their own prominent place in the network. When we arrived in Toksook Bay, the ice was already gone and the weather was windy. No one was hunting seals. Wind creates waves and choppy water, dangerous in terms of the risk of falling overboard. The waves also make it more difficult to see the seals. "They won't show themselves" explained Darlene. The head of a seal in the water is far easier to see when the sea is calm and the water is flat. Shooting from a boat is challenging, and the more a boat tosses with the waves, the less chance of success in hitting the animal. Wind also makes targeting and shooting a rifle or throwing a harpoon more difficult. Balance is impacted. Eyes water. Seals are easier to see when they are hauled out on the ice, and the ice in Toksook Bay was gone already by my visit at the end of March 2019. Locals said the ice had gone a month early. Harley Sundown in Scammon Bay indicated that techniques for hunting

have changed, largely due to absence of snow and thick ice. Seals give birth on the ice, near their blow holes.

There is a longstanding trope about "Indian Time." It suggests indigenous peoples do not value punctuality or keeping a fixed schedule. The local Moravian youth pastor emphasized to me only half-jokingly that "time does not exist." He told me the clock in the school gym has no hands and the fluctuation of the village generator interferes with timekeeping accuracy. At one woman's house, I donated a fresh battery to her kitchen clock. Of course, with today's cash-economy jobs, airplane flights, and running a school, time does indeed exist. But the youth pastor clarified, "Time doesn't exist because weather dictates everything. That's why time doesn't exist." Weather dictates subsistence activities very directly. Hunting and care of the catch depend on weather. In addition to hunting conditions, the weather impacts processing conditions. The meat, fish, and hides carefully arranged on racks or nailed outside many houses require weather as an agent in successful drying. For these subsistence products, weather that was too cold might induce freeze-drying and excessive desiccation of the meats and tissues. The right weather is required to dry inflated seal intestine. Too warm, and animal products might rot or mold. Warm weather also brings flies and other insects that can ruin them. If the temperature is too cold, the intestine will "freeze dry," yielding an opaque white product that is no longer waterproof.

Annie texted me during her trip to Mountain Village: "Wow Im glad ur'e busy we'll see u if we have tomorrow." This simple message and its curious turn of phrase has special significance. If something is ready to be done, it is good to do it right away. Just in case. "Who knows what tomorrow will bring....We are really good at last-minute stuff," commented Darlene. This

reminds me of *upterrlainarluta*, or "always getting ready" (Barker and Barker 1993). I took
Annie's mention of "if we have tomorrow" to be a reference to the agency of a spiritual power
outside ourselves that will determine whether or not any of us might live to see the next day. The
first time I attended church, the pews were nearly empty. That morning, the weather had been
excellent and several hunters caught animals. The following Sunday, the weather was not as
ideal and the attendance at church was much higher. Wondering to what degree plans matter
compared to hunting, I asked Darlene if Johnny would hunt knowing they would be traveling to
Mountain Village that night. Freshness and prompt care of the catch are important, so if an
animal were caught it would set into motion work for Darlene as well. Would Johnny take a *maklak* if he could? She told me he was at work at the moment, but maybe he would hunt. She
does not know if he is going hunting until he says he is going. She stated,

A lot depends on the weather. You get up in the morning and decide. See what the weather is doing. But yes, maybe he'd get one and put it in the van [shed] because it is cold yet, but still, it would be better to take care of it right away because it will start to go bad...but maybe someone else could work on it." Darlene was clear that they would be going to Mountain Village no matter what, as that kind of meeting does not happen very often.

Can humans and the weather have a mutually influential relationship? While it may seem that a human agent may be at the mercy of the ice and wind agents in the network, climate change research has generated a great many scholarly papers considering the relationship between humans and the weather. The forefront of this environmental change is the arctic. Just weeks after my fieldwork large numbers of dead seals, birds, and fish were reported washing up on Yup'ik shores. Scientists believe ocean warming is leading to animal deaths, both from direct overheating beyond the tolerance of certain species and from changes in the food chain resulting

from elevated temperatures and ocean acidification. In Scammon Bay, April 11, 2019 was a very warm day...the river was opening early. Naaman Kaganak sounded concerned, "But the birds are not here. Herring are not here."

Factors such as wind, rain, cold, and warmth as well as the ocean and celestial bodies can be collectively summarized under the Yup'ik term of *ella*, translated as the sentient weather, environment, or universe (Fienup-Riordan 2012; 2017). It has personhood as *Ellam Yua* (the Person of the Universe) and its agency is depicted symbolically as a concentric circle-and-dot motif known as the *ellam iinga*, translated as "eye of the weather" or "eye of the universe" (John 2009). Using the ANT tool of *punctualization*, a network focused on weather as an agent will not be explored in depth here because it involves factors several steps removed from the Obligatory Passage Point of sea mammal intestine under investigation. Recognizing weather as an agent is sufficient for the purposes of the dissertation, and punctualization allows us to set it aside as a meaningful unit.

6.2 Spirits As Agents

Gut touches at least two networks in my investigation: subsistence, which is strong, and precontact spirituality which is fraught. 200 years ago, before missionary activity in Yup'ik country, there was consensus on how the spiritual world was structured and arranged. Chapter Three describes a robust network of spiritual relationships involving seals and internal organs.

Discussion about the spiritual world is delicate now because there is not consensus about what beings have souls and how spirits/souls travel between worlds. "I don't know much about shamans, I don't believe in them." Gemma Akerelrea told me, "How is it possible for a person to

be higher than God?" Yet many people did tell me about shamans, *ircinrrat* (little people), bigfoot, ghosts, and other distinctly Yup'ik beings. People told me about relatives, in-laws, or ancestors who had been shamans, or who were "gifted" and may have become shamans if the training had been available. Some people even described their own gifts and out-of-body experiences. Given the prevalence of these accounts in the literature, I do not think it was specifically my investigation into gut that brought forth these accounts during my fieldwork, but it did become clear that non-human agents of a spiritual nature are an important part of both the past and current network about gut. It was also clear that questions about spirituality and religion were among the most sensitive matters to ask about openly, and in a culture where asking uninvited questions is rude, I was very reluctant to inquire about spiritual beliefs. Some people resolve the tensions by leaving old beliefs behind, but some people keep the old beliefs in mind and look for commonalities, analogies, and parallel constructions between the old ways and the different modern day spiritual traditions. There is a cultural value in avoiding conflict and looking for synergies and overlaps, and a shared cultural goal to have harmonious relationships with the environment and the subsistence gifts it gives. Avoiding explicit verbalization of exactly what things might mean spiritually creates space in the network for potentially contradictory things to co-exist together. For example, a person's Yup'ik name might be considered a literal reincarnation of a person who previously had that name. Or it might be a way to honor the memory and connection to that namesake who is now in heaven. Or it might be a way to connect family members together and create new relationships of reciprocation. Which of these options is preferred is kept fluid by not asking questions. Contradictions between those possibilities existing simultaneously can be diminished by reducing their verbalization. In the Maussian sense of the gift, it is enough for me to assert here that gifts are exchanged between humans and the spiritual world, and spirits are agents in the network.

The analysis of gut as an agent suggests the material is liminal, both a boundary and a passage. Within the body, gut serves as a boundary to keep some food materials inside the gastrointestinal tract and expel unneeded materials from the human or animal. It is also a passage, allowing nutritious portions of that food to permeate through the gut and pass into the bloodstream. As a processed product used in material culture for its physical properties, the boundary functions of gut include holding liquid water (canteens), containing air (as in hunting floats), protecting from rain or seawater (raincoats and windows), and retaining heat inside since raincoats are often described as being very warm. Permeability allows one's own moisture from sweat to escape a rain parka as vapor, much like synthetic Gore-Tex. Permeability also allows light to pass through a gut window. Dual protection and permeability are also a spiritual qualities of gut. The sound of gut permeates the barriers to the spirit world as drumming or the crackling of raincoats and streamers, but it can also protect the wearer who may travel to the spirit world, either as a shaman wearing an *imarnin* or the deceased making the transition with a gut death mask. In the Bladder Festival, the gut was a boundary containing the soul of the seal as breath: *amerneq*.

Christian churches continue to have relevance and help Yup'ik people navigate their lives. Yupiit are still in the midst of delicate work to reconcile those synergies, especially concepts of sin and the possibility of heaven and hell in a world (field of practice) where souls reincarnate. I do not analyze those complexities of Yup'ik worldview in this dissertation, but acknowledge that

spirituality is an important factor in explaining why making gut no longer holds a place as an Obligatory Passage Point (see page 55).

6.3 Gendered Agents

While I had intended to pursue gender as a factor in gut obsolescence, it was challenging to include it as a factor in my analysis. In my doctoral preparations, I had taken a class about gender in cross-cultural perspective, read the text Gender and Hide Production (Frink and Weedman 2005) and read the excellent work of Liam Frink (2002, 2007, 2009) highlighting the role of colonization in disrupting traditional Yup'ik village economies by altering the power of women in production and distribution of goods. I anticipated that gut might be rare today because a partnership was needed between a hunter who was a man and a gut expert who was a woman. This differed from other material production where harvest, processing, and production would be within a single gender. For example, Yup'ik women gather and process grass and then weave it into baskets. Men hunt walrus and retain the tusks they carve into jewelry, tool handles, and other items. But there are also examples that incorporate the complementary labor of both men and women in resilient material culture production, most notably the prevalence of fur sewing skills and the vitality of parka, hat, and boot-making. This usually requires a man to hunt or trap the animals used and a woman to process and sew the furs. There are also cases of abundant material available to both genders, yet traditional products made from that material may be rare today. An example is fish skin technology. Women have ample access to abundant fish skins of different kinds throughout the year, but like gut, it is rarely used to make things today. Availability of commercial materials that do not require time-consuming processing is also a reason for the decline in use of fish skin, but unlike gut, there is increasing presence of fish skin

items in the art market, thanks to Alaskan artists such as Marlene Nielsen (Yup'ik), Audrey Armstrong (Koyukon Athabascan), Joel Isaak (Kenaitze), and June Pardue (Alutiiq) (Smithsonian 2013; Jackinsky-Sethi 2014). Also unlike gut, fish skin is easily available to non-Native artists and the fashion industry (Palomino 2019, Williams 2020).

Another challenge to gender analysis in this project was that it did not seem in keeping with Yup'ik epistemology and worldview. The models promoted by Yup'ik scholars Oscar Kawagley and Theresa John are non-hierarchical and avoid binaries. In Yup'ik culture, traditional names are recycled through the generations without regard to gender. Certainly missionaries and boarding schools facilitated sex/gender distictions, but this was unlikely to be the case in precolonial Yup'ik spirituality. Women as shamans are referenced many times in the anthropological literature (Lantis 1946, Nelson 1971, Oswalt 1963, Zagoskin 1967). At a Toksook Bay festival for the opening of the Agayuliyararput mask exhibit, Johnny Thompson of St. Marys described his grandmother: "Tut'angaq was an *angalkuq*, [she was] a female shaman. Women *angalkut* were very powerful. They were respected and feared by men. Men were wary of them" (Fienup-Riordan 1997, 236). Toksook Bay Elder Paul John recounted a story he had heard of a female shaman who presented a bearded seal mask in ceremony. Ann Fienup-Riordan noted, "A powerful female angalkuq possessing hunting knowledge contrasts dramatically with the male angalkuq, who was typically a mediocre hunter" (Fienup-Riordan 1996, 89). In her 1990 article "Gender Status in Yup'ik Society" Lillian Ackerman noted, "No extensive male domination appeared to occur in aboriginal Yup'ik society, and in fact, women's status seemed to be dominant within the domestic sphere" (Ackerman 1990, 220). During my fieldwork in 2019, there were many examples of empowered women. I met a woman who implied to me that

she had some of the natural gifts and out-of-body experiences that would have caused her to be trained as a shaman in the past. In Scammon Bay, the first time I attended Catholic mass, the person leading the mass was Liz Kasayulie, a woman who is a respected Elder. The a2a women's meeting was a powerful example of the agency of women in the village to address wellness and emotional health in the context of spirituality. The principal of the school, Melissa Rivers, is a *kass'aq* woman married to one of Alice Rivers' sons. They have children together and have lived in Scammon Bay many years. Several generations ago, Yup'ik communities concentrated the activities, teaching, and daily village life of the men in the *qasgiq*, while the women's lives were mainly conducted in smaller sod houses. There is almost no one alive today who experienced that way of life.

One aspect of gender studies that I found helpful in the analysis of gut practices was the idea of culturally constructed categories. Queer literature and the rejection of binary ideas of gender resonated with the Yup'ik attribution of personhood and awareness to non-humans (including animals, spirits, and the weather) as well as a general rejection of binaries and linear concepts in favor of circular and cyclical models where the emphasis is on underlying similarities in spite of apparent differences and how to negotiate boundaries and passages. For the particular research problem of gut, a willingness to broadly consider ideas of agency beyond humans to encompass animals, objects, non-human beings, the weather, and perhaps even one's own mind as a distinct entity was more useful than pondering tensions between men and women.

Another aspect of gender that was prominent in the research was the role of food in the network.

Men generally did the hunting and divided the catch among their partners, but in the home it was

women who processed the catch, prepared the food, and facilitated an important network of eating and sharing. The hunting and eating of subsistence foods did not, in my observation, seem like a mere chore or task but a joyful and meaningful point of pride and satisfaction. From the eager scanning of the water with binoculars at the window to the pile of clean white bones next to the dinner plate, the entire process of subsistence seems to be absolutely cherished by members of the community who recognize it as special and take the sharing of subsistence foods very seriously. Gut has always been processed primarily by women, but it seems this is complementary to men's activities and continues to be part of a coherent whole. The ability to hunt and process subsistence foods and products (such as skins) is an important mark of what Pierre Bourdieu would call *capital*. Economic capital, familiar as money and assets, is a part of subsistence because hunters cannot pursue marine mammals without a boat, gas, rifles, harpoons, and other supplies. The ability to hunt demonstrates one's economic capital, but such demonstration is not the point of subsistence. Social capital involves the resources and advantages linked to membership in a network, and certainly subsistence is a network that people very much want to be associated with. If one does not have a boat, then being a hunting partner is a point of pride and prestige. Having enough subsistence food to be able to share with others is a mark of status and social capital. Being a worthy recipient of subsistence foods is also something to be excited about. The third kind of capital, cultural capital, is the type most strongly associated with gut production. These are resources and advantages that come from specialized skills and studies. How to hunt, how to process animals, how to prepare food correctly and even how to eat it correctly (pukuk the bones) are all forms of cultural capital. I would assert that this kind of capital is the kind that makes people feel the most Yup'ik and makes other people perceive them as Yup'ik. In this sense, cultural capital can be said to

promote a sense of wellness and identity. Cultural capital is also the category that would include historical objects made of gut (objectified cultural capital). The final category of capital defined by Bourdieu is symbolic capital, or the resources derived from honor, prestige, or recognition in mastery of the other categories of capital. In Yup'ik culture, the privileges of being an Elder are an example of symbolic capital. While a number of factors contribute to the obsolescence of gut, I believe the concept of capital, particularly social and cultural capital, best explains why some people still make gut and why gut still matters. In the analysis of gut from a gendered perspective, the concept of capital explains a non-verbal assertion of successful collaboration surrounding gut that implies complementary activities of both genders.

6.4 Gut Is Not An Agent?

When we arrived in Toksook Bay, I was excited to show the *imarnin* to my collaborator, but when I pulled it out of the box I was horrified to note it had some small spots of mold that were not there before. She instructed me to hang it up immediately and not touch it until it was fully dry. Later on, she rolled it up dry and had me stow it again. She had seen and even made gut raincoats herself in the past. She still owned two, kept in her house in another village. To my surprise, she did not seem much interested in the raincoat. In fact, no one did. There was one on the wall of the school in Toksook Bay, but not in Scammon Bay. The Bethel high school had one in an exhibit case. The family we stayed with in Scammon Bay had another *imarnin*, and there are photographs on their living room wall of the late Mamie Ulak making one. But in the eleven days we were there, it never seemed interesting enough to the family to bother bringing it out of storage. Still, I thought the *imarnin* I brought might be of interest in the right situation. The day an Elder was lecturing about gut at the school, just before we inflated some fresh *maklak*

intestine, I thought the moment had come. I brought out the raincoat for her to talk about with the

students. But she was deterred by how brittle and delicate it was, and did not want to handle it.

She had an *imarnin* made by Mamie Ulak, kept in a plastic bag in the freezer, that she brought

out instead. Even then, she only took it out briefly, and put it away again within minutes. In all

the homes we visited, no one brought out anything made of gut to show me. It seems that

bringing this *imarnin* was not an effective methodology after all. This raincoat, and others like it,

did not seem to have a place in the web of relationships I was studying in the villages. Part of the

reason might have been that the manufacture, use, and possession of gut raincoats do not have a

role right now in the actions that perpetuate the network of relationships. Alice described the

decline in the use of gut items:

Ellen: When you were young did a lot of people have raincoats or was it getting rarer?

Alice: It was getting rarer when I was growing up but I used to see my mom make it.

Ellen: Hunters would wear them?

Alice: My dad would wear it.

Ellen: How long ago did you last see someone wearing one?

Alice: That was when mom was alive. She died right after my husband passed away

seven or eight years ago.

Ellen: Someone was wearing one to go hunting?

Alice: No. Billy used his. But back then we were starting to wear *kass'aq*-made

raincoats.

Ellen: Do you still have a raincoat?

Alice: No.

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Ellen: Did you ever see a gut window?

Alice: No, but mom used to say, make lots of noise when it was windy!

Just because intestine is rarely processed into a material for making objects did not mean that it is was not important. Eating gut is still special, and is part of the network of relationships surrounding subsistence foods. There is a practical side to the nutritional value and physical exercise associated with fresh subsistence foods as compared to highly processed store-bought foods, but the actions involved in subsistence foods are also an important glue that binds relationships through giving and sharing throughout the community. Molly Lee describes the importance of sharing food beyond the community, through an extended exchange of urban and rural products she calls the "cooler ring" (2002) and I include it here as a *punctualized* network. Food is shared in networks beyond the village. The news media has also recently reported on seal meat and other culturally valued foods being sent to hospitals and care facilities in larger cities to extend both the nutritional and the emotional benefits of subsistence foods to Yup'ik people who are far from home for medical treatment. Particularly for marine mammals, there is little possibility of eating those foods without a cultural connection, because they are protected under the Marine Mammal Protection Act and cannot be purchased commercially. Eating Native food is a tangible connection to the network of relationships that caught and prepared the animal.

Ellen: For you, why is gut special?

Alice: For eating it...it is when they catch it...what we like is the top part, like I said making the soup for eating. I've dried once the seal guts and I didn't after that.

Ellen: So when was the last time you scraped gut and blew it up and rolled it?

Alice: A few years back.

Ellen: Are you going to do it again?

Alice: I never see one yet. I don't think I will. Only if I want to.

6.5 Failure of the *Imarnin* as a Methodological Tool

Based on these observations, I return to the ANT idea of translation, and Michel Callon's four steps that cause networks to change. In the first step, *problematization*, making gut an Obligatory Passage Point in the past was necessary and indispensable when there were no synthetic or commercially made materials easily available as drum heads, rain gear, or windows. Long ago, its role as a spiritual mediator was also widely accepted. Over time, other technologies became available to address utilitarian needs, while spiritual interpretations of gut were likely suppressed along with other non-Christian traditions such as dancing, drumming, and ceremonies. Step two, interessement, involved negotiations to accept the definition of the focal actor. While utilitarian protection and permeability of gut have always been recognized, spiritual protection and permeability have not been retained as part of its definition. Step three is *enrollment*, or aligning other actors in the network with the interests of the focal actor. If gut is theorized to have agency in communicating with the spirit world, that attribute has diminished as the network has changed over time. In fact, the loss of that quality may even undermine its candidacy as an agent. If we theorize that gut is an *index* that carries the agency of someone else, then its use and meaning in Yup'ik culture is easier to conceptualize. Gut as an index carries the agency of humans in communicating with the spirit world, the agency of seals in reincarnation, and the agency of spirits visiting the human world in ceremonies. In a utilitarian sense, we could even say gut is an index of the agency of humans to keep out the weather, keep in heat without getting sweaty, and carry liquids and gases. For the animal, gut was another food product offered, an index of its gift relationship with humans. The final step of Callon's translation describing change in a network is *mobilization*, the monitoring of various actors to encourage participation and perpetuation of the network. I argue a network of relationships among Yup'ik people, animals, the environment, and the spirit world does continue, but it does not require gut to continue being part of the network and thus perhaps undermines the idea that gut was ever itself an agent.

Using Gell's Art Nexus (figure 4) the gut parka might be analyzed as an index to help explain its recent failure as a methodological tool in the field of Scammon Bay. If the seal gut parka was used by a hunter, the "artist" would be the woman who made the parka, the "recipient" upon whom the index operates would be the hunter who wears the parka, and the "prototype" (the agent whose agenda is carried by the index) would be the seal. In the past, the agency of the seal would be present in the parka because it would be aware of the proper treatment of its body and parts. Pleasing the seal through appropriate butchering, processing, sharing meat, and sewing the parka would encourage other seals to come to the hunter. In this example, the parka is part of a network of relationships that includes animals as agents. In the case of a gut parka used by a shaman, the "artist" is again the woman who made the parka, the "recipient" might be the spirits whose aid is sought by the shaman, and the "prototype" whose agenda is carried by the parka would be the shaman. An alternate interpretation might be that the "recipient" could be someone the shaman might be healing, since the parka would be used as conduit between agents in different worlds mediated by the shaman. Again, the parka is part of a network of relationships, this time including spirits as agents. In the case of a seal gut parka studied in a museum context, the prototype is the entity under investigation. In this case it might be the seal, the woman who made the parka, the hunter who wore the parka, or shaman who used the parka. Rarely would the agency of the seal or spirits be considered. A network of relationships is altered from the original context where the parka was made and used. It might be that a network of relationships in the field of the museum includes the researchers themselves as "recipients" who are seeking to cultivate social capital. In the case of bringing a historic parka to Scammon Bay, the "artist" who made the parka is unknown and the "recipient" upon whom the parka operated was meant to be the community members I met. I hoped the interactions of Scammon Bay locals with the parka would suggest the prototype and thus indicate something about how Yup'ik people conceptualize the significance of gut as a material and possibly an agent. It seems the *imarnin* no longer triggers ANT translation as a spiritual material, and did not find a place in the village network because it had no known connection there and had no role in promoting anyone's capital. Perhaps *qiluliuryaraq* (processing gut) connects people in a network and promotes cultural capital, but a historical parka does not because there is no action. In the field of the village, the network of practice that produces gut persists, demonstrating traditional knowledge, a connection to subsistence as a source of various kinds of capital, and the cultural value of not wasting. No one in Scammon Bay today sews gut and there is no community of practice for imarniciyaraq (making a gut parka). Perhaps it would be different if the investigation were about the sewing of an *imarnin*, as there was significant action in the village around skin sewing and making cotton gasperaat.

Chapter 7: Conclusions

...(sociologists) talk of the social, And *then* (if they talk of it at all which most do not) they talk of the technical. And, if it appears, the technical acts as either a kind of explanatory *deux ex machina* (technological determinism). Or it is treated as an expression of social relations (social reductionism). Or (with difficulty) the two are treated as two classes of objects which interact and mutually shape each other. (Law 1991, 8).

In this project I used an inquiry about how intestine is processed to find out why the material has become rare and why some people still make it in spite of its obsolescence. I explored networks of subsistence relationships and spiritual relationships through this investigation. Does an obsolete material indicate obsolete relationships? Are there non-utilitarian reasons objects and artworks made from gut are rare today? Obviously the relationship with marine mammals continues since seals, whales, and walruses are enthusiastically hunted and eaten, the acts of butchering and eating are carried out in a non-wasteful and respectful fashion, sealskin is often still used, and seal fat is commonly rendered into oil as a highly desired condiment to complement various foods throughout the year. The transformation of raingear away from gut to synthetics does not signal a breach in the relationship with the animal. But it does perhaps suggest a change in the Yup'ik relationship with the spiritual world.

In Scammon Bay, Harley Sundown was candid, "Not a whole lot of intestine things are made for practical use except for art." My own experience in the Alaskan museum world since 2001 and specifically studying gut in Alaska since 2009 have made it clear that even artwork made from gut is rare. I asked Gemma Akerelrea if gut was still special. "I think it is still special. We don't make it anymore, none of our younger adults have knowledge. I think I know how to start a *gaspeq...*" (a raincoat I ask?) "Yes. Start from the hood..." I ask if she would be able to make a

rain parka, and she replied, "I think so, I've seen it." Several people echo Gemma's concern: "If we don't use it, it will be lost." Darlene Ulak thinks it is important to show children and grandchildren how to make gut, to "know about our culture, be rooted more, and the know-how also makes you rooted in my opinion."

I was surprised to note almost a dozen people in Toksook Bay and Scammon Bay who knew how to make gut, and either had some scraped gut in the freezer waiting for the right weather to dry it, or had rolls of finished gut, but did not make anything from it. Is the action of making gut itself the important thing? Maybe the finished gut does not matter as much as the act of making it. Perhaps the action is a protest to rate of change. In the 2011 film Igloos and Eskimo Kisses, George Smith stated, "I saw the first lightbulb. I saw the first airplane land. I saw the first snowmobile. I've seen the first telephone, I've seen the first TV, and now I have a cellphone." When I met George during my fieldwork, he was barely 60 years old and had almost no gray hair. Darlene Ulak's kitchen is better stocked than mine, in whatever way you might imagine. Dry goods, utensils, dishes, appliances...hers is a modern kitchen. Perhaps making gut is an act of resistance to the influx of dominant culture materials and values that has come with the modern world. Recent workshops on gut sewing and processing in Anchorage, Bethel, Seattle, and Dillingham reveal indigenous interest in strengthening knowledge about how to process and use marine mammal parts.

The loss of gut technology can be explained as a change in a network of relationships. Resilience or revitalization of gut technology can be seen as a way to understand human and non-human agents who were part of the network in the past as well as empowering people to determine what

the network will be like in the future. Marcel Mauss opened my eyes to look for evidence of reciprocity and gift exchange used as a way to perpetuate ongoing relationships. Wedding the Maussian idea of "the gift" with Latourian ideas of networks gives a mechanism to connect the agents in a network through action. Observing the circulation of gifts in the networks of this investigation, it is clear that gift exchange is not simply a back-and-forth exchange between two actors. Gifts circulate widely. These social science concepts resonate with Yup'ik values of giving. Harley Sundown stated, "We still operate from the traditional values that if you give something... it comes back to you more. Same thing in Biblical or religious thought" (Hixenbaugh 2011). A great many combinations of relationships actively giving and taking are necessary in a network, not just a link between two nodes in a network. Asymmetry, emerging balance, and ongoing debt of the "gift" make sense within a network of relationships. In this way, the loss of just one possible agent, such as gut, is not enough to cause the loss of a network.

Agency is not just a back-and-forth between the same two agents in a network over time, but something that circulates throughout the network. The gift one gives does not come back in a linear and predictable fashion, but there is tremendous faith that it does come back and therefore people must give and give generously even when the mode of reciprocation is not immediately obvious. I experienced this personally in the many wonderful meals I ate, the hospitality in people's homes, and the willingness to help me with my research.

7.1 Obsolescence And Structuralist Transformations

This dissertation suggests the spiritual aspect of gut is a factor in its obsolescence today. This possibility is best understood from an anthropological point of view through Descola's Matrix of

Identifications and the underlying structuralist idea of transformations he uses to construct this ontology (Descola 2013, 2016). Descola constructs a structure of contrastive oppositions based on "a duality of planes between material processes (which I call 'physicality') and mental states (which I call 'interiority')." For Descola, the animist ontology assumes similar interiority, but differences in physical appearance between transformations. This aligns so well with Yup'ik ontology, Descola uses Yup'ik masks as the textbook example of this structure (Descola 2014, 40). If actor-network theory applied in this dissertation affords the possibility of agency to people, animals, artifacts, spirits, and the weather, then any of those things could be analyzed for underlying similarities of interiority while exterior appearances may change. By looking at structuralist transformations to identify things that have changed in the physical world but maintain underlying similarities, clues might be found that indicate cultural values and goals are similar to those in the past, but the ways to achieve them are constantly reinvented. An investigation into the decline in gut use does not correlate to obsolete relationships between people, but it might be an indicator that spiritual relationships look different today than they did in the past. In this way, gut as a Yup'ik spiritual material is obsolete but Yup'ik spirituality itself is not obsolete, it simply looks different on the surface.

New relationships with modern materials and technologies have occurred through cross-cultural contacts. Gore-tex, rubberized rain gear, rifles, steel boats, and motors have made hunting look physically different than it did in the past. But the underlying value of hunting and the subsistence relationships among animals, people, and the spiritual world are still vital. Subsistence food may not be buried in a chamber under the sod house, or stored in an above-ground food cache, but the freezers in people's houses are packed with subsistence foods and its

value as part of reciprocal relationships in the network continues to be strong. Many people are affluent enough to waste food if they want to. It is not necessary today to pick every bit of meat off the bones for nutrition, but the act of *pukuk* demonstrates respect for the ancestors who did sometimes struggle nutritionally for survival. It also demonstrates respect for the personhood of an animal who gave its life.

The ubiquitous "Eskimo ice cream" known as akutaq changes profoundly from place to place in its physical appearance and has a bewildering variation of recipes. Fundamentally, it ought to contain fat and fruit, but beyond that the ingredients differ greatly. Long ago, seal fat or caribou fat was its foundation, and sometimes snow, but during my fieldwork I also encountered musk ox fat, Crisco, and even fat-free yogurt. Fruit is usually salmonberries and blueberries, but any kind of store-bought berries, canned fruit cocktail, or (quite controversially) raisins may also be included. Sometimes there is no fruit, but mouse food or other subsistence plant items are incorporated. Addition of flaked fish meat or fish eggs is also common. I even heard of the addition of mashed potato. Yet everyone would recognize these variations as akutaq, the favorite homemade Yup'ik comfort food treat. And perhaps not even homemade, as you can but it by the pound at the supermarket deli in Bethel. The texture of the mixture is also achieved in different ways. Many women sit on the kitchen floor, sometimes with latex gloves, and whip the ingredients together in a large bowl. One achieved the texture with a Kitchen Aid mixer. Even so, a time-traveling Yup'ik from 200 years ago would certainly recognize any of these variants as akutaq. Darlene noted the way she processed gut, "I do it this way. Maybe you saw your mom or grandma do it another way, but we're trying to achieve the same goal." She mentioned it again when preparing the seal skin, "You make do with what you have, can't run to the store for a tool.

We do what works for us." For example, some women take the skin off first, some prefer to take the fat first. Again, same goal, different technique. "What works best for you, or what you're used to..." she says.

Similarly, I argue that while the physical material of gut has become rare, the interiority of the agents connected to gut in the past are unchanged today, and still have relationships with each other. The hunter and the berry picker are still gathering the subsistence gifts of the environment, but their rain gear looks different. The seals and whales are still giving themselves to hunters and their families who are grateful. The drummer has a synthetic drum head, but the neighboring village has still traveled for Messenger Feast or *Curukaq* to celebrate exchange and rivalry between the communities and the featuring of young people's accomplishments. Glass windows now let the light in and keep the rain out. The structuralist transformation in this investigation that is now missing is the connection to the spirit world that the presence of gut once added to the balance.

7.2 Obsolescence And Spirituality

Because the exercise of writing an anthropological dissertation is the act of a neophyte anthropologist with very limited fieldwork, the assertion that the obsolescence of gut in current Yup'ik practice is an indicator of change in spiritual relationships is ambitious and difficult to prove. Here I have attempted merely to suggest and explore the idea in a sufficiently anthropological way to indicate a proficiency in the discipline of anthropology at the doctoral level. I suspect the loss of gut as a regular presence demonstrates there is a loss of pre-contact Yup'ik spiritual ways, but it might be more accurate to say that Yup'ik people have an ongoing

relationship to the spiritual world and changes that came about after the arrival of missionaries may have imposed new ceremonies and structures to change the outward spirituality of the people, but the interiority of their spiritual values continue unaltered.

In a 1991 interview with Ann Fienup-Riordan, William Tyson, one of the first Yup'ik Catholic deacons, expresses sympathy for the dilemma of melding religious traditions:

...But then if you look at it, I cannot blame them. They work for Christ and, remembering the first commandment of God, – "Thou shall not have strange Gods before me" – well, they had to obey that. And everything else was not right. They had to tell us to obey that one. So were they wrong or what? So now what I've been thinking is that they should have studied our belief before condemning it...Because those old medicine men, some of them are amazing in what they can do. They seem to have power of some kind. If we study that, where did the power come from?...In my mind I want to blame them, but at the same time I can't. But I wish they had studied our way first. And then we might have been together. (Fienup-Riordan 2000, 145).

This passage suggests William Tyson was actively looking for the underlying commonalities between the new religious practices and the old ways of making prayer. Harold Napoleon describes a tragic misunderstanding:

What the white man saw was not worship of the devil, but a people paying attention — being mindful of the spirit beings of their world and with whom they had to live in harmony. They knew the temporal and the spiritual were intertwined and they needed to maintain a balance between the two. The Westerners had witnessed the physical representation of that spirit world as presented by dance, song, and mask. But they did not understand what they were seeing: they were strangers to the spirit world of the Bering Sea Eskimo. (Napoleon 1991, 6-7).

Chevak educator John Pingayak describes his efforts to reconcile the Cup'ik teachings of his ancestors and the Christian beliefs that guide his sobriety. He recalled the influence of his

grandfather, Joe Friday, "He said, 'The wind comes to you. When the wind blows against the trees, it'll bring you a song. It's not your creation. You did not compose it. It was given to you.' So when I sing it, it's already spiritual. 'The creator gave it you and you gave it to the people'" (Pingayak 2017). Descola would say the Westerners were entrenched in a naturalist ontology of the world, where science dictates the commonality of the physical world, but tends to grant interiority only to humans. On the grid Descola uses to map ontologies, the Yup'ik and Western ways of seeing the spirit world manifest on Earth could hardly be more different. It is little surprise that the painstaking work to reconcile the two is still ongoing.

Another clue to the spirituality of gut is the unexpected appearance of Sedna in Yup'ik mythology. Anthropological literature and the cross-cultural collection of myth and folklore strongly suggest pre-contact Yup'ik people did not historically share the Sedna myth with other circumpolar cultures. I was very confused when Ben Charles asserted the Yup'ik people had Sedna. When I investigated further, hunter and artist Earl Atchak of Chevak also sometimes uses the name Sedna for some of his sculptural works. Does it matter whether or not Yup'ik stories long ago included a Sedna myth? More salient perhaps is that Ben Charles and Earl Atchak find it perfectly plausible and that the "seal woman" resonates well with Yup'ik beliefs in their own well-informed perspectives.

I suggest *habitus* and *doxa* explain the continued production of gut even when it is not subsequently made into anything. In the past, gut was literally and metaphorically a boundary.

Gut was also literally and metaphorically a passage. Many Yup'ik practioners today have lost the once-ubiquitious knowledge of the metaphorical meaning of gut. But because they have

absorbed the *habitus* lessons of gut-making passed down through people who did remember those meanings, they have also retained a sense that gut is special. Features of habitus seen in gut production and foodways include mimesis (Bourdieu 1990, 73) or the unconscious acquisition of how to execute gut practices learned through bodily enactment in imitation of others and bodily hexis (Bourdieu 1977, 70) as seen in practices such as processing gut on the kitchen or classroom floor in Scammon Bay as opposed to on raised table surfaces such as in museum settings. The particular ways gut is handled, such as the action of scraping out the mucosa without inverting the gut, or the sizes of the pieces qiaq is cut into and how they are delivered to the mouth are also examples of hexis. Skilled gut processing and culinary preparation can also be considered habitus because it is embodied cultural capital acquired over time that includes a historical component. Gut practices also have a component of doxa (Bourdieu 1977, 68) with its nonverbal aspects that are taken for granted, specifically that gut is delicious, eating gut is virtuous because it demonstrates respect for the animal and for one's ancestors, and that processing gut demonstrates one's Yup'ik values to the community as well as oneself. Finally, for humans and non-humans (especially animals and objects who do not share human language), bodily communication of values and intentions through actions that manifest as habitus and doxa are the basis of culturally-specific reciprocal relationships.

7.3 Revitalization and Continuation: "What Kind Of Person Are You?"

The loss of gut preparation practices and the obsolescence of gut usage is less informative and perhaps less intriguing than the question of why it persists. The most compelling answer is that processing gut demonstrates adherence to ideal Yup'ik personhood. Harley Sundown told me, "Everything is processed right away...shows what kind of person you are. Are you a lazy

person? A procrastinating person? The way to take care of animals determines how readily available they are, and how available an animal would be to your husband." I argue that this is an example of cultural and social capital. Due to freshness concerns, if you are able to process gut it demonstrates your access to gut, and that you are part of a subsistence network. It indicates your familiarity with traditional skills that are highly valued. Respect accrues to those who know what to do with all the parts of an animal. It demonstrates that you are someone who is occupied, who does not like to be idle, and who does not waste. This demonstration is often non-verbal, and enacted through culturally-specific actions of habitus. Among many anthropological texts in their home, Johnny and Darlene Ulak have a copy of Ann Fienup-Riordan's 2007 book, Yuungnaqpiallerput The Way We Genuinely Live: Masterworks of Yup'ik Science and Survival. During my fieldwork, Darlene mentioned she and Johnny were chatting over the meaning of the Yup'ik word in the book title, and in particular the syllable -naq-. She said the sense of word included making an effort, doing, action taken in order to survive and live. She emphasized it was not just thinking about it. In this way, gut preparation is a way to develop capital. Along with the ability to process gut, membership in a subsistence network is implicit. A person who can process gut has the social capital to be connected to a subsistence network that hunts marine mammals, the cultural capital to know how to process gut, and for many of the older generation who are familiar with this technology it might also include symbolic capital, as when Alice Rivers was asked as an Elder to go up to the school and demonstrate gut processing for the children. These kinds of capital demonstrate to others what kind of Yup'ik ideal person you are, but it also demonstrates what kind of person you are to yourself. What makes a person a "real Yuk", really Yup'ik? It is not merely a matter of blood quantum, or being a shareholder in a Native corporation. It is not one single aspect of a person, but a "preponderance of the evidence"

that is somewhat fluid and contested for many people. Examples of things that contribute to being seen as real Yuk include speaking the Yup'ik language, knowing who your relatives are, hunting, fishing, steambathing, acquiring/cooking/eating Native food, telling traditional stories, sewing, and carving. Because a sense of wellness, pride, motivation, and identity are linked to this sense of being a real Yuk, knowing how to process gut and doing so matters, even if the gut is not made into anything. It has the potential to be made into things, and the activity of making of gut not only reinforces this sense of capital for oneself and others, it embodies the value of upterrlainarluta, "always getting ready." A finished roll of gut might be made into a raincoat someday, or given to someone to make a pictograph, or sold at AFN to someone who might use it to decorate grass baskets. Processing gut is a powerful act of indigenous identity. The processing of marine mammal gut is particularly significant due to the strong subsistence relationships coastal Yup'ik people have with seals and whales. Most non-Native people do not process gut from animals, in part because dominant Euro-American foodways regard offal as awful, but also because of the special status of Alaska Native people regarding the Marine Mammal Protection Act and access to protected species.

When I describe my research to Drew, and in particular my research questions about obsolescence and continuation of gut practices, Drew emphasizes, "...the rate of change is insane in Western Alaska." He thinks being in the digital age creates its own pressures and stresses. "You can see it getting lost...you can see the atrophy, even in these few years..." In Scammon Bay, he gets the impression people don't feel the need to choose between being traditional or modern, that they can do both. But perhaps any bit of traditional knowledge is

precious, and a hedge against loss whether it is gut or something else. He characterizes this as, "This is something I know...if I let go, then no one will know it?"

7.3.1 Of Givers and Takers

When I was first reading anthropological texts about animals giving themselves to hunters (i.e. Brightman 1993; Hallowell 1960; Nadasdy 2007), I was amazed by this concept, but struggled to understand how such an arrangement could be a good deal for the animals. During a barbecue, I asked Mike Koskey, the chair of the Center for Cross-Cultural Studies at University of Alaska Fairbanks, "What's in it for the animals?" His simple answer has been in my mind for years: "Well, they're the givers, aren't they?" The significance of animals deciding to give themselves to the hunter is profound. In my own culture, emphasis is placed on the taker, and the prowess, skills, merit, privilege, and entitlement of the taker. Coincident is the threat of things being taken from the taker by other takers. My own cultural mindset is not on the mindset of the giver, nor a system of relationships based on ongoing and mutually-sustaining giving. What does it mean to have a set of cultural values based on giving, and be overtaken by a dominant culture structured on taking? Margaret Lantis reflected,

Perhaps because Euro-Americans have been so accustomed to hierarchical social systems, most of them have not seen the important horizontal relationships in Alaska Eskimo communities. Partnerships were universal and vital, that is, every person, not only adult males, had several partners, forming a network of cooperative work, personal defense, behavior control, and friendly giving. (Lantis 1984, 218).

When I was in Toksook Bay on the one-year anniversary of my husband's death, and one woman's family threw a feast for me, it became clearer: in Yup'ik culture, giving is primarily about the giver, not the taker. No one in that village knew me or my late husband and the event

had nothing to do with my merits, as I was a complete stranger. Giving was about them, about the givers, who they are, and what kind of people they want to be. In describing the exchange of seal products during the Toksook Bay *uqiquq*, Ann Fienup-Riordan describes 'the mediating position of women between men, but as gift givers rather than as gifts taken" (Fienup-Riordan 1983, xix). The question of "What kind of person are you?" helps explain why gut continues to be made, why people feel it is still important, and why people still want to know this technology. In addition, the concept of the gift is an element that is harder to observe in the academic or museum setting. A field is a place where gifts circulate. But in the academic or museum fields, professionals are paid for their expertise. Consultations with outside experts are often short-term and do not encompass a longer-lasting relationship. Recognizing the circulation and importance of gifts in the village field from a distance is difficult.

7.6 Future Directions

Documenting the process of gut making, creating opportunities for people to share knowledge, and exploring ways to make the material culture in museums work for the benefit of source communities is the direction this research can be useful to Yup'ik communities. In Bethel, a community member told me that Ann Fienup-Riorden's current mapping project is really badly needed, and she is respected for giving credit to her collaborators. I was told that Fienup-Riordan is "recording, not interpreting." Another researcher, an Alaska Department of Fish and Game biologist, was held out as a contrast. No one will publish the work, I'm told, because collaborators don't like being analyzed and interpreted. Similarly, Ben Charles described his appreciation for Ann Fienup-Riordan's more recent works, where you can "really hear the voices of the Elders" rather than her very early anthropological work, where she was foregrounding

analysis of what she saw rather than facilitating the knowledge of the Elders. Yup'ik country suffers problems...suicide, tensions over resource development, drugs & alcohol, domestic and sexual violence, threats to subsistence way of life, sovereignty, obstacles to indigenizing their institutions. But this investigation intentionally concentrates on themes of hope, resilience, persistence, inspiration, transmission of knowledge. Museum work helps preserve knowledge from the past for inspiration and guidance in the future.

Museum study of raincoat construction would be a possible direction for future study. Several Yup'ik women eagerly showed me the fundamentals of seam construction with two folded scraps of paper, delighting in the elegant engineering. Many people have sewing skills, and sewing cloth and fur is fairly common. Not everyone who has a spark of interest will go on to make things by having a relative teach them if there is no such relative. Not "everybody knows" how to make things anymore. But a cross-cultural study of gut processing technology and raincoat production might be valued. Many museums in Alaska have gut parkas, but in many cases the attribution is poor. No one has done a systematic study of gut raincoat construction technology in Alaska, and poorly attributed artifacts have a way of not being studied, exhibited, or published. An analysis that incorporates a *chaîne opératoire* approach (Dobres 1999, Leroi-Gourhan 1993) to compare and contrast choices in gut production between cultures might yield meaningful insights about relationships. For example, known differences between intestine use among the Yupiit, Siberian Yupiit, Iñupiat, Athabascan, and Unangan cultures include the animals selected, whether or not fresh intestine is inverted to scrape the inner layer, if "wintertanning" is done (producing a satiny flexible white material, but rendering the gut no longer waterproof or translucent), or which side of the curve the dried intestinal tube is cut. Patterns,

seams, welting, stitches, and embellishments used for rain parkas seem to be culturally distinct, yet no published resource exists to distinguish them comparatively, and many raincoats in museum collections are unattributed or identified as simply "Eskimo." Such a project could involve skin sewers from various Alaska Native cultures to study and attribute raincoats in museum collections as well as look for misidentified gut-scraping tools. Peptide mass fingerprinting (Kirby et al. 2013) could be used to identify species from tiny samples taken from the raincoats. This study could expand the network of practice approach exploring agents and relationships surrounding gut to include *chaîne opératoire* and object biography frameworks that were not successfully applied in this dissertation. Continued production of gut in Yup'ik country is different from revitalization in Alutiiq country. Differences in the continuing interest in gut there indicate that reasons for its decline in use included culturally specific factors, and not simply utilitarian reasons. Alutiiq artists Coral Chernoff and June Pardue have been working with gut, and there is a desire to reclaim these culturally specific and traditional materials. Sven Haakanson⁷ stated.

There are only a few indigenous members of the Alutiiq/Sugpaiq community using this material today because it is seen as "gross" and this knowledge was nearly forgotten until the last decade. Now there is a resurgence of learning and using this material in art and as a celebration of indigenous ingenuity.

Unlike some culturally salient materials from Alaskan cultural environments (such as ivory and spruce root) gutskin is rarely used today. Fran Reed (fish skin vessels), Steve Brown (wood carving), and Cheryl Samuel (Ravenstail weaving) are examples of non-Native artists who have

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⁷ Haakanson, Sven, Jr. (Curator of Native American Collections, Burke Museum, University of Washington), email message to author. October 8, 2017.

contributed to a revitalization of traditional media. This is less likely to happen with gutskin. Revitalization of gutskin technology for artistic production will need to originate with Native artists. Contemporary issues of subsistence and law are a contentious context for the use of marine mammal parts. Access to the resource is a recurring concern (Fosdick 1985, Dirks 2004, Robards and Joly 2008, Gadamus and Raymond-Yakoubian 2015, Gadamus et al 2015). Human-Human relationships of a colonial kind have interfered with human-pinniped relationships for many generations. Indigenous frameworks focus on network-like relationships of respect, while U.S. government agencies and commissions focus on the biology of Western science and hierarchical relationships of dominance. Coastal Yup'ik Elders see animals as "persons to be hosted, not finite resources to be managed." (Fienup-Riordan 1990, 189) Could a revitalization in gut as an art material help illustrate the vitality of subsistence networks and help assert subsistence rights?

Considerable information about the networks of relationships associated with gut is retained in the Yup'ik language. Sources recorded in Yugtun such as the Sundown interviews (1993a-e) and film footage of Neva Rivers describing a gut parka (Rivers 2006) would reveal a depth of information, context, and nuance to a Yup'ik speaker that were unavailable to me during this project. When Angayuqaq Oscar Kawagley stated in 2006, "The Yupiaq term for relatives is associated with the word for viscera, with connotations of deeply interconnected feelings. One must acknowledge and take pride in a relationship, and this feeling comes from within," it might be that the word he refers to is *ila*. Without knowing how and when this term is used, I am unable to fully grasp its significance in relation to gut. A linguistic anthropology investigation of

gut in collaboration with fluent Yup'ik speakers would likely be a rewarding avenue of investigation.

In the realm of anthropological theory, opportunities for analysis of non-human agents in the network may benefit from more robust application of theoretical tools *doxa* and *habitus*. These concepts were helpful in my fieldwork for suggesting relationships that were not obvious at a distance, such as the connections among Yup'ik people, food, animals, ancestors, and the spirit world expressed through *pukuk*. Future work may utilize these tools to search for evidence of relationships among agents that may not communicate through human language. Consideration of *doxa* (as culturally-based unquestioned truths or "common sense") helps focus observations on possible shared values, while attention to *habitus* could help make sense of how the actions of agents are "structuring the structures" through practice in a network of relationships particular to a given social group.

7.7 Broader Impacts

A network of practice approach that incorporates many stages of material culture production and emphasizes the relationships among various human and non-human agents has the power to alter museum practice. As seen in the examples mentioned in this dissertation that involve source community practitioners actively intervening in the museum treatment of gut, this approach can promote both indigenous authority in the care of material culture as well as contribute to the revitalization and resilience of material practices. Another example is the collaborative research surrounding Chilkat weaving at the Alaska State Museum. In 2016, Chilkat weaver Anna Brown Ehlers was contracted to repair a Chilkat robe intended for display in the new Andrew P.

Kashevaroff facility in Juneau. I collaborated with Anna on these repairs, and together we discussed the treatment choices and wrote about our experience (Carrlee and Ehlers 2020). Another initiative sparked by the dissertation research is the Chilkat Dye Working Group, an ongoing effort to identify and produce locally-based yellow, black, and blue-green natural dyes used historically to color the wool used in Chilkat weavings. Approximately 20 Tlingit, Haida, and Tsimshian weavers have participated in the monthly meetings over the past two years. Phase one of the research involved gathering new baseline samples of dyes to send to chemists at Portland State University, who are using instrumental analysis to create a database to investigate the samples from historic robes in the museum collection that were sent in phase two. Activities have included studying historic robes, donations of dye samples, dyeing wool together on the loading dock of the museum, exploring new dyestuffs gathered from the rainforest, studying notebooks and weaving kits from past generations of weavers, and presenting ideas about our research strategy jointly to school groups exploring S.T.E.A.M. curricula. This collaborative research is revealing a diversity of motivations for the continued participation of the weavers in the project, and is helping the museum better understand what weavers want from museums to enhance their practice. A confluence of relationships among a great many agents was meant to occur in June of 2020, when the biennial cultural festival Celebration hosted by the Sealaska Heritage Foundation was scheduled. The museum had been planning an exhibition of Northwest Coast woven regalia, co-curated by Tlingit, Haida, and Tsimshian weavers. The chemists from Portland State University intended to hold the 2020 convening of the Mellon-funded Pacific Northwest Conservation Science Consortium at the Alaska State Museum during Celebration to both share their preliminary findings with the community as well as experience the Chilkat weavings being danced as part of a living cultural tradition. Due to the cancellations associated

with the COVID-19 pandemic, these activities have all been postponed. But the ongoing work exemplifies the kind of impact a network of relationships approach based in practice can have in promoting the missions of museums and enhancing their ability to support the interests and vitality of source communities. Analysis of the upcoming 2021 events and the impacts of the scientific analysis of the historic robes through the anthropological lens proposed in this paper could contribute to an exciting scholarly conversation coming from Alaska. This conversation, including the significant upcoming publications expected from both the Materials Traditions workshops and the Nunalleq Project in Quinhagak, promise to make Alaska Native voices prominent in the interpretation, understanding, and use of Alaska Native material culture.

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