ANIAKCHAK NATIONAL MONUMENT AND PRESERVE

TRADITIONAL USE AND USER GROUPS STUDY

July 2007

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Submitted to:

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This report is in partial fulfillment of PNW CESU Task Agreement UW-01-10 and PNW CESU Task Agreement J9088020020, between the National Park Service and the University of Washington.

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EXECUTIVE SUMMARY

This report represents a summary of findings from the Aniakchak Traditional Use and User Groups Identification Study. This research effort centered on the identification and documentation of natural and cultural resources associated with traditional uses of Aniakchak National Monument and Preserve (hereafter "Aniakchak") by Alaska Native communities in the region. Specifically, this research sought to illuminate three broad themes:

- 1) Historic uses of park land and resources by Alaska Native groups within and around the modern-day boundaries of Aniakchak,
- 2) Present-day use of park land and resources by Alaska Native groups within the boundaries of ANIA, and
- 3) Uses of land and resources near or related to Aniakchak that may affect, or be affected by, NPS management actions.

To conduct this research, the National Park Service (NPS) entered into a cooperative task agreement with the Pacific Northwest Cooperative Ecosystem Studies Unit (CESU). Housed within the College of Forest Resources at the University of Washington, the PNW CESU is itself the home of the Protected Area Social Research Unit, which took principal responsibility for the current project. Ms. Michele Morseth was hired by the PNW CESU to direct this project, and Morseth served as Project Manager during the interview and archival phases of the research.

Although the major emphasis of this research has been on Aniakchak, it was necessary to collect data covering areas outside the park unit in order to provide a meaningful cultural context for analysis. Moreover, general data collection focusing on the historic and contemporary lifeways of Aniakchak-area Native peoples was deemed necessary to document the use and importance of culturally significant resources occurring within Aniakchak. The study identified specific uses of park resources by Native Alaskan communities, while also attempting to identify some of the effects of such use on natural resources, as well as any effects of NPS operations at Aniakchak on Native Alaskan uses of lands and resources. An important component of the study was to identify traditional access methods and routes, as changing transportation routes and technologies appeared to have facilitated changing patterns of resource use within ANIA, and motorized access to Aniakchak continues to be a point of debate today.

As a National Park Service "Traditional Use Study," this study has emphasized the collection of original ethnographic data, rather than prioritizing the gathering and synthesis of published materials. An earlier Ethnographic Overview and Assessment involved literature review; this literature review also informed and guided the current project (Morseth 2003). While the current research did not seek to identify "ethnographic resources," it did aim to identify culturally significant resources, including those designated by other terms and cross-listed in other NPS inventories. Sites categorized as archeological for preservation purposes, for example, are associated with ethnographic information if Native peoples consider them to be appropriate places for historical memorialization, the teaching of young people, or ceremonial activities. Members of traditionally associated groups may also ascribe meaning to objects in park collections perceived as sacred or as items associated with Native Alaskan cultural identity and heritage. They may also assign meanings to localities and landscapes, where reference points are based on collective notions of past or present use.

The current research effort was conducted to achieve multiple complimentary goals. The ethnographic information resulting from this research effort shall augments a database of cultural resource data that is used by NPS staff to better understand and consider impacts to culturally significant resources which result from proposed actions and to identify traditionally associated Native groups for purposes of consultation under the Native American Graves Protection and Repatriation Act (NAGPRA), the National Historic Preservation Act (NHPA), the National Environmental Policy Act (NEPA), and other cultural resource laws. Ethnographic information collected during this study can also assist NPS natural resource management, cultural resource management (especially the management of archeological sites), and interpretation. Among other applications, the information shall help managers evaluate requests for access to resources, as well as identify park resources that may require special treatment or protection.

METHODS

In consultation with the National Park Service (NPS), the Protected Area Social Research Unit in the College of Forest Resources at the University of Washington employed Michele Morseth, an applied cultural anthropologist, as Project Manager, to plan and execute this research. Working directly with NPS staff and the NPS CESU Coordinator, the project manager prepared a research plan to guide all project phases; this plan included an overview of the types of interview questions to be asked of knowledgeable individuals (see Appendix A). Concurrently, NPS staff assisted the project manager in communicating with village representatives to discuss the project prior to the initiation of field research. The villages of Chignik, Chignik Lake, Chignik Lagoon, Port Heiden, and Pilot Point were consulted at this point in the project and were encouraged to provide comment on, and recommendations for, the research plan.³

Existing archival and published materials served as background for ethnographic interviews. Morseth, as well as the subsequent Project Manager, Dr. Douglas Deur, participated in this literature review. Published literatures, historical photographs, maps, and locally available archival sources were consulted for information about traditional uses of Aniakchak. Published literatures were also consulted regarding general patterns in Alutiiq land and resource use that might help to place more place-specific ethnographic data in context. Project staff also located and copied transcripts of pertinent recordings, such as those held by the Alaska Native Language Center and Oral History Program at the University of Alaska Fairbanks and the Bureau of Indian Affairs Anchorage ANCSA Office.

Still, while this research effort involved occasional recourse to published, archival, and "grey literature" sources, it focused squarely upon the recollections of contemporary individuals with ties to ANIA, as reported in ethnographic interviews. The interview component of this project was designed to:

- 1) give Alaska Natives and other people traditionally associated with Aniakchak the opportunity to speak freely about the area by administering open-ended interviews,
- 2) allow these individuals to talk about the sites or resources first-hand,

- 3) provide a standardized instrument for data collection that reflects the concerns and areas of knowledge of traditionally associated communities and matches their ability with the English language, and
- 4) provide an inductive system of data-recording that captured as fully as possible all ethnographic information, comments, concerns, and recommendations shared by project interviewees.

The field researchers attempted to identify and interview people who have spent considerable time in Aniakchak, or their descendents. Also, field researchers attempted to interview people who have been considered experts on particular subjects related to traditional uses of the Aniakchak area, such as knowledge of genealogy, oral or folk history, place names and associated stories, legends, plant and animal resources, ritual practices, and other past or present uses that are tied to Aniakchak. Knowledgeable individuals were sought primarily among persons of Alutiiq or other Alaska Native descent, who were resident in the villages of Chignik, Chignik Lake, Chignik Lagoon, Port Heiden, and Pilot Point; occasionally, interviewees were sought in other, more distant communities, though these individuals all had personal ties to these more proximate villages. Interviews were conducted according to professional standards set by the Oral History Association; interviewees were asked to sign a release form on which they were given the choice to be identified in the project report.

The participants in this study were residents of the villages that are located in the vicinity of Aniakchak (Figure 1). There are six principal villages in the vicinity of Aniakchak: the three Chignik villages (Chignik, Chignik Lagoon, and Chignik Lake) and Perryville on or near the Pacific coast, and two villages on the Bering Sea coast: Port Heiden and Pilot Point. In addition there is one smaller village of Ugashik and a now nearly abandoned village, Ivanof Bay, close to Aniakchak. These villages share proximity to the lands and waters of ANIA, and their residents have a history of hunting, trapping, fishing and gathering in the area. While Perryville residents consist largely of families that were displaced from elsewhere on the Alaska Peninsula during the Katmai (Novarupta) eruption of 1912, some of these families have longer historical associations with the area, or have established patterns of land and resource use that resemble those of their pre-eruption homeland. Especially in the wake of motorized transportation, Aniakchak is within the geographical scope of hunting, fishing, and gathering areas used by all of these communities. While much of ANIA, especially its coastal southeastern area, is located within the territorial boundaries of the Koniag, Inc. Native Corporation, all of these communities are part of the Bristol Bay Native Corporation. An appendix - Appendix C - is included in this document, listing these communities' corporations and associated non-profits.



Figure 1: Aniakchak National Monument and Preserve and Park-Associated Communities

Whenever possible, traditional activities associated with Aniakchak were documented with as much geographical accuracy as possible, using copies of topographic base maps as part of the interview process. Base maps served both as a mnemonic device for interviewees, as well as a medium for recording locations of traditional land and resource uses. The interviewers furnished as much background information on sites and landscapes as possible, in addition to maps, such as photos and copies of earlier reports, in order to assist people in their recollection of specific lands and resources found within Aniakchak.

Interviews tended to focus on specific topics of contemporary concern to Native Alaskans and NPS resource managers alike, especially recent hunting, trapping, and

all-terrain vehicle (ATV) use. Still, the topical range of interviews was broad, and considerable latitude was made for allowing people to tell stories or branch into subjects other than contemporary resource use of the Monument. Interviewees were recommended by village council members, researchers from the Bristol Bay Native Association (BBNA), the Alaska Department of Fish and Game (ADF&G), the NPS, or by other interviewees. Some interviewees were also chosen from people previously interviewed by Michele Moresth in the preparation of her Ethnographic Overview and Assessment for ANIA, "Puyulek Pu'irtuq!: The People of the Volcanoes" (Morseth 2003).

The interviewers referenced a set of questions for each interview, in order to provide them with general guidance on the themes of each interview and reminders of potential topics; however, interviews were not rigidly structured, and not all interviewees were asked all of the questions on this list. A copy of this set of questions is included as Appendix A of the current report. Hand written notes were taken for all interviews and a number of interviews were tape-recorded. Interviewers subsequently produced typed interview notes, using their hand-written notes and adding clarifications. Some recorded interviews were also transcribed. While audiotapes were reviewed during the completion of the current report, these notes and transcriptions serve as the principal sources of ethnographic data for this report.

Topics that were documented through interviews included, but were not limited to: settlement history and use of the sites in or nearby the Monument and Preserve, seasonal migrations, traditional inter-village travel routes, traditional means of resource access, hunting and fishing practices and sites, localities where food has been gathered, past settlements and economic activities in the area, place names, ceremonial sites, religious activities, and medicinal uses of lands and resources in Aniakchak. Additional information was gathered relating to past and present environmental knowledge, such as the type and degree of animal and plant resources used, patterns of subsistence use such as a "seasonal round," and the redistribution of harvested resources within Native Alaskan communities. Information about resource use and environmental knowledge that was specific and directly linked to a locality was of particular interest. The study documented, whenever possible, how this environmental knowledge and land and resource uses have changed through time.

Interviews were of two types: in-village and "on-site." In-village interviews represent the bulk of the interviews conducted for this study. These interviews consisted of semi-directed, open-ended interviews with individuals, families, or small groups who have experience with and knowledge of Aniakchak. Interview tools included mnemonic devices such as maps, photos, non-sensitive archaeological report data, and information derived from Michele Morseth's previous research in the area. Attempts were made to fill in data gaps (e.g. trap line locations and plant gathering activities) identified but not fully explored in previous research.



Figure 2: Julius Anderson being interviewed by Michele Morseth, Chignik Lagoon, August 2002

Visits to Aniakchak were made when project participants were available and willing to make such trips. These "on-site" interviews, while less numerous than in-village interviews, sometimes provided more detailed information regarding traditional uses of lands and resources in Aniakchak, as well as a number of important contextual details not available in more conventional interview formats. On-site interviews were semi-directed so that information was gathered broadly, yet still adhered to some of the central themes of the overall research effort. This "on-site" interviewing principally consisted of boat trips to the shoreline of Aniakchak, as well as an ATV ascent into the park's northern reaches with residents from Monument-associated communities nearby.

Following the completion of interview research, the project manager sought to synthesize interview data and other materials into a draft report. Dr. Douglas Deur, of the Pacific Northwest Cooperative Ecosystem Studies Unit, completed this synthesis, organizing materials thematically, noting the geographic context of traditional land uses, and their change or consistency through time, to the extent that this was apparent

in the project materials. Dr. Deur also expanded the literature review conducted by Michele Morseth, in order to place interview findings into their broader cultural and historical contexts. Almost all recorded interview content is reflected in some manner within the current document. The principal exceptions include frequent mentions in these interviews of:

- 1) places and activities that are not found in or near Aniakchak, and have no clear relevance to the study area⁴
- 2) details regarding State and federal permitting and regulatory actions relative to fish and game that have little demonstrable or distinctive bearing on the study area,
- 3) personal information not relevant to the project's overarching goals, and
- 4) economic data regarding communities, families, or individuals that is not directly relevant to the project's overarching goals.

The fieldnotes and other materials provided in the project archive might still be gleaned for these types of information, in order to provide a more complete statement regarding the context of the ethnographic data presented here. Information on resource use in the vicinity of the Chignik villages is especially detailed in this project archive, and it is expected that the project archive will be of value to village residents and researchers for many different applications.⁵

Clearly, the content of this report expands upon, and occasionally overlaps with, the content of the *Aniakchak Ethnographic Overview and Assessment, Puyulek Pu'irtuq!: The People of the Volcanoes* (Morseth 1998, revised 2003). In an effort to reduce the redundancy of these two documents, much of the information that was presented in *Puyulek Pu'irtuq!* is excluded from the current document. The two documents are intended to be complementary, with the current report addressing somewhat different topics, or occasionally corroborating the information used in *Puyulek Pu'irtuq!* using different forms of evidence. For a more complete overview of the range of traditional uses of the Aniakchak area, ideally one should consult both documents, in addition to the recently completed Historic Resource Study, *Beyond the Moon Crater, A New History of the Aniakchak Landscape*, by Johnson-Ringsmuth (2007), and Archaeological Overview and Assessment by VanderHoek and Myron (2004).



Figure 3: Community of Chignik Lagoon, 2002 Photo by M. Morseth

PLACING ANIAKCHAK IN CONTEXT

While the central focus of the current report is on the knowledge and experiences of contemporary people, the discussion of these topics may be aided considerably by a brief summary of what has been written about the past. What follows is not meant to be a comprehensive overview of the history and culture of the Native Alaskan communities of the Aniakchak region - such an overview would require volumes of text, and many authoritative volumes already have been written on these themes. Instead, this overview provides a summary of certain recurring themes in the writings regarding the study area that help to set the context for the interview data that follows. It is hoped that readers who seek more detail on the subjects outlined below might consult the cited sources included in the text and bibliography below.

The principal focus of this study is the experiences of families and communities that are of Native Alaskan descent. Most identify as Alutiit - the native people of the eastern Alaska Peninsula, adjacent Kodiak Island, and eastern Kenai Peninsula to Prince William Sound. The term Alutiiq (adjective form) or Alutiit (noun form) has a long and complex history - explorers, historians, and anthropologists have previously referred to the same people as "Aleut" or "Pacific Eskimo," but also often include them within the "Koniag" or "Kaniagmiut Eskimo," a reference to their connection with their fellow Alutiit of Kodiak Island, generally referred to as the "Koniag." The Alutiig language is also sometimes referred to as Pacific Eskimo, Sugpiag, or Sugtestun. Many Alutiit still use such terms "Aleut" in reference to themselves. In this context, the term "Alutiiq" has become a popular standard in recent years, reflecting both a growing sense of Alutiiq identity and pride, as well as a general need for terminological clarity (Partnow 1993). Summaries of Alutiiq cultural traditions can be found in a number of sources, such as Haggarty et al. (1991), Clark (1984) and Davis (1984). Early historical descriptions on Alutiiq cultural traditions are widespread, focusing especially on the communities of Kodiak Island (e.g., Merck 1980; Davydov 1977; Gibson 1976; Birket-Smith 1941).

In the pages that follow, this document sometimes alludes to historical and ethnographic literatures on the Alutiit that are, in truth, written in direct reference to the Koniag of Kodiak Island. This is done advisedly, recognizing that - while subtle distinctions no doubt separated these groups - what was documented regarding the Koniag Alutiit can be generally applied to the Alaska Peninsula Alutiit. The use of the Koniag literature here reflects a response to a notably uneven representation of the two groups. While Kodiak Island was the center of considerable documentation by Russian and American chroniclers, very little was written specifically regarding the Alaska Peninsula. Indeed, as some authors have noted, for a region that has been documented in such detail, the Aniakchak area in particular represents a curious gap in the literatures of exploration, history, and anthropology: "merely a section of the

landscape to be observed while traveling on the way to someplace else" (Tuten 1977: 1).

While there are clear pre-contact associations between the Alutiiq communities of the Alaska Peninsula and those of Kodiak Island, reflected in both linguistic and archaeological affinities, the exact nature and degree of these connections continues to be a subject of debate (Clark 1994; Workman 1980; Dumond 1971). The two groups - Kodiak Island communities and Alaska Peninsula communities - were fundamentally unified by kinship ties, and spoke two separate subdialects of the same Koniag dialect of Alutiiq (Woodbury 1984). Kodiak oral tradition suggests a shared origin with their Alutiiq kin on the Alaska mainland (Gideon 1989: 59), and some archaeological evidence has provided further confirmation of this genesis (e.g., Dumond 1991). Regardless of their origins, it is clear that the regular and apparently frequent contact between the Alaska Peninsula Alutiit and their neighbors on Kodiak Island and the Inupiaq communities to the north facilitated a sharing of ideas and technologies that fostered cultural convergence:

"The gradual convergence of cultures on Kodiak Island, the Pacific Coast, and in the Naknek Drainage may be fairly simply explained as the result of cultural contacts between closely situated peoples. This is especially easy to understand in the case of the Pacific Coast and Kodiak Island, as virtually identical ecological niches were involved" (Clark 1977: 98).

As will become apparent in the pages that follow, this connection between Kodiak Island and Alaska Peninsula Alutiit has implications in the understanding of traditional uses of Aniakchak National Monument and Preserve. Early accounts of the Kodiak Island Koniag mention travel to the Alaska Peninsula, and extensive trade with Alaska Peninsula communities, to obtain caribou-skin parkas, caribou antlers for spear tips, caribou hair for use in embroidery, and a variety of other goods not found on the islands (Gideon 1989: 57). Speaking of the Koniag, Holmberg (1985: 39) noted that

"reindeer hides are obtained from the inhabitants of the Alaska Peninsula in return for sea otter pelts, amber and the like. Reindeer parkas were...decorated with many feathers and other adornment... [Also] They obtain little blue stones (debris with copper content?) from the Alaska Peninsula, which are crushed to a powder to make the paint" (Holberg 1985: 39-40).

This pattern of Koniag resource utilization on the Peninsula arguably persisted in attenuated form through the Russian period and may help to explain an enduring pattern of Kodiak Islander use of Aniakchak's shoreline today.

Generally, archaeological research in this region suggests that there was considerable mobility and migration prior to European contact. Discerning the association of archaeological sites to particular modern ethnic groups has therefore been challenging, especially in ethnolinguistic border areas (Clark 1992, 1984a; Dumond 1972). The archaeological research of Workman (1966), and later Dumond, et al. (1975) clearly suggested that the Port Moller area represented a longstanding boundary between the Aleut and Aluutiq worlds. Yet both clearly saw that this middle portion of the Alaska Peninsula,

"located between areas of Aleut and areas of southern Alaska influence, must have received ideas from various directions...[and that] it is a mistake to expect to find that any material cultural boundary between Eskimos and Aleuts has ever been as sharp as the cleavage between their languages" (Dumond, et al. 1975: 58).

Likewise, researchers have noted a complex set of cultural relationships suggested by the archaeological record. Aleut and western Inuit traditions, for example, are often combined with Alutiiq elements at Alutiiq archaeological sites, reflecting larger historical integration of these broadly defined cultural groups at their boundaries (Dumond, Conton and Shields 1975; McCartney 1974, 1969) Similar conclusions have been reached by ethnographic sources such as Lantis (1947, 1946) that note, not only elements of Aleut and Inuit tradition, but also a significant number of cultural practices that are traditionally associated with the Northwest Coast, including institutionalized slavery, the use of certain artistic styles, and the use of surplus wealth in status displays and ritual feasts. (This being said, researchers sometimes note that -despite the intersections between Alutiiq culture and those of the Alutiiq peoples' neighbors - this cannot diminish the fact that Alutiiq culture represents a distinctive and complete cultural tradition rather than a pastiche of disparate elements (Partnow 1993).

While some of these similarities reflected inter-ethnic borrowing, some clearly reflected parallel trajectories of endemic social and economic change that may reflect only limited exchanges of ideas and technology. For example, archaeological evidence suggests that Koniag Alutiiq communities increasingly specialized in salmon procurement and expanded their storage of salmon in the years post-dating roughly 700 years ago. This, coupled with the expansion of households during the same time period, suggests to some archaeologists that salmon intensification was key to the cultural intensification of the Alutiit (Partlow 2000). Similarly, Jordan (1988) has noted archaeological evidence of inter-village ceremonial feasting comparable to the Northwest Coast potlatch, as well as the increased use of symbolic markers of status such as labrets, all postdating roughly 600 years ago. He interprets this as evidence of the emergence of surplus, rather than merely subsistence, economies and the elaboration of food harvesting and storage technology, as well as the expansion of

trade, warfare, slavery, and other social institutions. Seen in this light, the Alutiiq parallels to Northwest Coast societies do not simply reflect cultural borrowing and admixture, but also parallel trajectories in resource intensification.

While precise pre-contact boundaries between culture traditions and cultural areas will perhaps always prove elusive, the lessons of the archaeological literatures are many. Communication, travel, and the exchange of ideas and technologies along this coastline appear to have been the rule:

"Wherever the boundary existed, hunters, trappers and fishermen from several linguistic groups traveled along the Chignik-Aniakchak coast in search of food and shelter [prior to European contact]" (Tuten 1977: 15).

Still, if the Aniakchak coastline were traversed by a diverse range of communities and culture groups, it was not densely settled. In fact, a number of archaeologists have noted that the settlement density on the Pacific coast of the central Alaska Peninsula was surprisingly sparse, and not on par with places such as Kodiak Island or the Aleutian Islands. This is true, despite the presence of the Peninsula's comparable resources:

"It is almost, if not quite, accurate to say that on the islands of the Kodiak group and on those of the eastern Aleutians, everywhere there could be a visible archaeological site, there is one. The same statement simply cannot be made of the Pacific coast of the Alaska Peninsula as it is thus far known archaeologically. And yet in terms of available resources, with the routine presence of harbor seals and other sea mammals even where major rookeries and haulouts are absent, with small but regular runs of chum and pink salmon and char in even the most insignificant of the tumbling coastal streams, with beds of clams in most coastal bays, with plentiful halibut and cod offshore, and with caribou available not only a short distance across the mountains, but along the coast itself in at least small herds, the Pacific coast of the Peninsula should have equaled any of those other regions in its attractiveness to late prehistoric people. It apparently did not, and the reasons for that failure are not now evident" (Dumond 1987: 160).

Various explanations have been advanced for this anomaly. Some have suggested that, as transitional ecological zone, situated close to the westernmost edge of Alutiiq occupation, the Aniakchak area was situated in a relatively empty zone between two cultural "core" areas to the east and west (Haggarty et al. 1991; Yesner 1985). Thus,

Haggarty et al. (1991: 241) have referred to this area as being in an "intermediate position between both ecological and social frontiers." Likewise, Yesner (1985) interprets this boundary area as being stable and apparently uncontested over the long term, as it was an ecological "boundary zone," with neither marine mammal or fish resources at a scale found in the core of the Aleut or Alutiiq heartlands:

"The boundary zone between Eskimo and Aleut populations on the Alaska Peninsula was not a resource-rich buffer zone, but a (relatively) resource-poor zone that acted as an isolating barrier between two relatively richer resource zones – one nearly exclusively maritime (the Aleutian Islands and lower peninsula) and one providing a mixed coastal/riverine/tundra suite of resources traditionally exploited by Eskimos (the upper peninsula)" (Yesner 1985: 84).

In addition, volcanism may have been a significant factor in affecting - and at times suppressing - both subsistence practices and settlement distribution on the central Alaska Peninsula. Archaeological evidence does suggest that catastrophic geological events - including volcanic eruptions, but also tsunamis and other seismic events have often resulted in the displacement and relocation of human communities near, and presumably within, Aniakchak (Dumond 2004; VanderHoek 1998; Workman 1979; Davis 1971). Following this displacement, volcanism has varying secondary effects, such as the reduction in fish and game populations that, in turn, might reduce human subsistence use of volcanic landscapes for varying periods of time. Thus, Workman (1979) notes that periodic volcanic disturbances had disproportionately severe and enduring impacts upon terrestrial resources, compared to certain marine resources, a factor that may have also contributed to marine resource intensification and a relatively flexible uses of terrestrial areas. Marine impacts of volcanism, while often severe, are generally shorter-lived. Certainly, the Alutiiq of the Alaska Peninsula do appear to have established a relatively flexible pattern of terrestrial resource procurement, with hunting areas of what might be termed "ranked significance" to a community, covering large geographical areas. This pattern appears to be reflected in modern-day subsistence hunting along the Peninsula's Pacific coast, as shall be discussed later in this document. While these traditions do not necessarily represent an "adaptation" to a volcanically active landscape, they do appear to have provided the Alutiit with a resource strategy that could endure volcanic disturbances - a concept that Kent (1991), for example, has alluded to as "anticipated mobility." Certainly, there is some evidence to suggest that the volcanism affected human use of Aniakchak over the last few millennia. Eruptions of Aniakchak volcano appear to be related to significant discontinuities in human occupation in the middle Alaska Peninsula roughly 3,500 years ago. This may have been related to both the catastrophic initial effects of the initial Aniakchak eruption at that date, coupled with the depressed terrestrial resources in the area of ash deposition - perhaps for centuries

thereafter (VanderHoek and Myron 2004). Once settlements became reestablished, they were in turn subjected to repeated rounds of volcanism. Intermittent settlements appear along Aniakchak and Kujulik Bays 2,000 to 1,800 b.p. but then disappear again for perhaps 200 years, possibly displaced by repeated cycles of volcanic activity. Gradual reoccupation, first as the site of resource outposts and later as a site of enduring settlements, is apparent in the archaeological record following 1,600 b.p. (VanderHoek and Myron 2004). Thus, while not permanently extirpating the human presence in Aniakchak, the cycles of volcanism clearly have had the potential to suppress levels of settlement and subsistence activity in past millennia.

The general patterns of marine and terrestrial resource use on the Pacific Coast of the Alaska Peninsula have been partially recoverable through archaeological investigation. Certainly, the patterns of contemporary land and resource use that will be described in the pages that follow can only be understood in the context of this larger history. For millennia, the availability of subsistence resources has been unevenly distributed along the coastline, resulting in a similarly uneven pattern of settlement and resource use among the Alutiit. The coastline of the Alaska Peninsula has been said to represent a "punctuated coastal pattern of ecologically rich embayments separated by areas of sparse marine resources" (McCartney 1988: 49). These rich embayments were, and generally continue to be, the focal point of both most settlement and subsistence activities.

Access to marine mammal hunting areas - places with predictable concentrations of seal, sea lion, walrus, sea otter, and whale - was especially important for the precontact Alutiit. Looking at broad spans of archaeological sequences on the nearby Shelikof Strait, Clark determined that "The economy, though fluctuating, remained heavily sea mammal oriented" (Clark 1977: 91). And clearly, whaling and sealing have been widely reported in the bays along the Alaska Peninsula, originally for subsistence and later as part of commercial efforts by the Russian-American and Alaska Commercial Companies (e.g., Gideon 1989).

Yet, access to areas for marine mammal hunting, usually a high-risk pursuit, was not as important to settlement location as was access to more predictable resources that might provide sustenance year-round and offset some of the risks of a reliance on marine mammals. Thus, many writers have commented on the concentration of settlements on estuaries and other areas characterized by multiple resources (Yesner 1992; Dumond 1987; Oswalt 1955). Winter villages, consisting of numerous semi-subterranean houses, sometimes alluded to during the Russian period as *barabaras*. These sod-houses, varied considerably in size, and were located close to wintertime sources of shellfish as well as cod, salmon, and other seasonally available fish, as well as providing opportunities for plant gathering and the hunting of large and small land mammals (Clark 1984a; Clark 1977; Lisianski 1968: 173, 195; Davydov 1977: 155, 175). Archaeologists have noted that shellfish, with their unmatched immobility, serve as a risk-reducing resource; many settlements in the region are located near

productive shellfish beds, which were especially relied upon at the close of the winter, before fishing could resume. This interpretation is supported by both ethnographic and historical accounts: "many have nothing but shell-fish to subsist on, and some die for want" (Lisiansky 1968: 210). In the summertime, many families relocated to salmon fishing stations and other specialized resource outposts that were located so as to provide access to particular fish, land and sea mammals, and plants.⁹

As Lantis (1984) has noted, the Alutiit of the Alaska Peninsula were exceptional within the region, blessed by access to both abundant terrestrial and maritime food sources. The richness of these coastal sites is suggested by an even cursory review of the historical and ethnographic literature. Historical writers allude to an abundance of sea urchins, clams, mussels, chitons, sculpin, and other marine foods adjacent to the coastal villages, as well as puffins, sea otters, and other species that provided the raw materials for Alutiiq material culture, ceremonial and mundane (e.g., Gideon 1989: 43-63). In these same areas, writers note small game such as red foxes, arctic ground squirrels, land otters, hares, porcupines, mink, wolverines, and beaver, as well as large game like wolf and brown bear, caribou and moose. Along the coastal margin, historical writers also note ceremonial and mundane uses of cloudberries, salmonberries and other *Rubus* species, huckleberries, wild cranberries, blueberries and other *Vaccinium* species, Crowberries, *Viburnum* berries, riceroot lily (or "sarana"), nettles, fern roots, grass for houses and baskets, as well as plants for medicinal uses such as "wild parsley" (Angelica spp.), "wild sorrel," "wild spinach" (Rumex spp.), and iris (Gideon 1989: 52). 10 Coastal sites were also fostered by the general importance of driftwood as the principal source of firewood, wood for the construction of semi-subterranean sod houses, traditional crafts, tools, and other purposes (e.g., Holmberg 1985: 44). Places that had all of these kinds of resources together in one place were unique, and were among the most important places for settlement historically.

It is clear that Aniakchak Bay and Kujulik Bay represent places of this kind. Accordingly, these two bays as well as Kumlik Island have served as the center of settlement and marine food procurement for much of the period from roughly 1,200 b.p. to the present. The bones of sea mammals, birds, anadromous and marine fish, as well as clam and other shells, and land mammal bone are widespread in middens found in these areas, in addition to fishing and hunting implements associated with their procurement (VanderHoek and Myron 2004).¹¹

Russian Influence on the Alaska Peninsula

In 1783, Gregory Shelikhov forcibly overcame Koniag resistance and founded the first permanent non-Native settlement on Kodiak Island. There, Shelikhov quickly established a fur trading empire that, in time, came to dominate economic and social life on the Alaska Peninsula. While introducing new ideas and technologies to the

region, Russian colonial abuses were widespread, and widely documented, in the early 19th century - especially within those communities that were proximate to Russian American Company operations. During the early years of the Russian-American Company, Company managers could, and commonly did, conscript Native Alaskans into their service, especially as hunters, in exchange for food, clothing, and boats:

"During Mr. Baranov's management, each settlement was obliged to provide several members of both sexes for work, and these were called kaiurs. However, with the reorganization of the colonies all these kaiurs were dismissed, and free men are hired for a specified period of time" (Khlebnikov 1994: 60).

Those who resisted Russian influence often found themselves to be the target of armed reprisals by Company employees. With the combined effects of forced relocation, armed conflict, and the introduction of new diseases, the Alutiiq people experienced convulsive change and demographic collapse (Dumond 1986). This appears to have resulted in the death or displacement of a number of individuals, families, and communities that were living in, or historically associated with, the study area (Gideon 1989: 69ff.; Golovnin 1985; Shelikhov 1981; Hassen 1978). On nearby Kodiak Island, Lisiansky reported

"The oldest inhabitants of the island say, that when the Russians arrived amongst them the population was double what it is now" (Lisiansky 1968: 193).

With the aid of Native labor, the Russians quickly made inroads into preexisting trade and social networks. As Hussey (1971: 131) notes, "there was scarcely a phase of life that was not strongly influenced by the district manager." Especially during the early years of the Russian-American Company, payments for trade goods were received in the form of credit at the Company store. This fostered an abrupt dependence on commercial sources of food and other supplies. In 1805-06, Lisiansky observed on the Koniag:

"Formerly the rich clothed and decorated themselves with the skins of sea-otters, river-otters, and foxes; but they are now obliged to sell these furs to the Company for tobacco and other luxuries" (Lisiansky 1968: 194).

The Russian-American Company did not discourage traditional hunting, fishing, and other traditional resource procurement, so long as it did not interfere with fur trade tasks. However, scheduling constraints - initially resulting from forced conscription, but later emerging in the form of commercial trapping and hunting duties - resulted in significant changes to the seasonal round that arguably persist into the modern era.

While the effects of the Russian period on the Kodiak Island Alutiit were dramatic, the effects on the Alaska Peninsula were less direct, and certainly seem to have reshaped patterns of traditional land and resource use at Aniakchak. Russians conscripted Alutiit to carry out a number of hunting expeditions to the Aniakchak area - hunting puffins, for example, on the "small islets and off shore rocks" along the Pacific coast of the Alaska Peninsula (Gideon 1989: 64-65). Sea otter, seal, and fox were also reportedly hunted in this area by both Russian and Native parties working under the direction of the Russian American Company. Some have speculated, in the absence of detailed geographical information regarding trapping areas, that Aniakchak was used as a trapping area during this period (Tuten 1977: 17). Also, Alutiiq people appear to have been conscripted into work maintaining certain fishing operations and drying stations located at various estuaries in the region, including some sites on the Alaska Peninsula (Gideon 1989: 61). Kodiak men continued to hunt caribou on the Alaska Peninsula during this period, but now did so in part to provide meat to the Company employees. ¹³ Short-lived cattle operations, sometimes using Koniag labor, were also established on the Peninsula with the same goal:

"Cattle raising was established successfully in the Katmai artel, but it has been reduced due to a shortage of men. There are many red foxes of very good quality on Aliaska... Deer [caribou] are hunted for food at a certain time of the year when they migrate from one place to another" (Khlebnikov 1994: 40).

Certainly, if the Koniag of Kodiak Island used the Alaska Peninsula prior to contact, their uses of the area continued, changed in motivation and scope, and may have even intensified during the Russian period.

Witnessing first-hand the horrific effects of Russian settlement on the Koniag, the Alutiiq people living on the south side of the Alaska Peninsula struggled to repel Russian attempts to establish trading posts, or even to hunt, on their lands (Tikhmenev 1940: 35). Alexander Baranov periodically sought to suppress this resistance, but was generally unable to accomplish this in light of more pressing demands on the resources and manpower of the Russian-American Company - efforts to quell this resistance only subsided following the relocation of Company headquarters to Sitka in 1805. This resistance effectively stalled some of the effects of Russian contact for the residents of the Alaska Peninsula. Remaining on the margins of the sphere of direct Russian influence in the late 18th and early 19th century, the Alutiit of the Peninsula had only intermittent contact with Russian *promyshleniki*, hunters and trappers. Occasional intermarriages were possible between Russians and Native women in this

context, resulting in the emergence of a "Creole" population of mixed ancestry that was allied principally, if not almost exclusively, to the Native communities of the area.

Perhaps the most noticeable and pervasive influence of the Russian period is the enduring prominence of the Russian Orthodox Church within most Native Alaskan communities of the region. Missionaries from the Russian Orthodox Church first arrived on the Alaska Peninsula in 1794. Immediately, they began to perform baptisms and marriages but, like other Russians of the time, found the Alutiiq of the Peninsula to be generally hostile to their efforts. The missionaries retreated to Kodiak, within safe proximity to the Russian-American Company headquarters, and established a school and orphanage there. Only in the 1820s did Russian Orthodox missionaries return to the Peninsula in an organized fashion, this time with the support of the Russian-American Company. While the Russian-American Company had originally been the target of missionary critique for its abuses of Native Alaskans, Company directors increasingly favored missionization efforts during this period, recognizing that communities that had accepted the Orthodox Church were generally more receptive to commercial associations with the Company. In the wake of Russian cession of Alaska to the United States in 1867, the United States' comparatively laissez-faire approach to social policy, along with the effective (if temporary) "decoupling" of religious and economic institutions in Alaska left an institutional void that the Russian Orthodox Church continued to fill. Despite Protestant (especially Baptist) missionary efforts in the years that followed, the Orthodox Church has endured, and even thrived, into the modern area. Most modern Aluutit are baptized and active within the Russian Orthodox Church, and membership in the Church is seen by many as being emblematic of Native Alaskan identity today. 14

The American Period

Beyond its implications for the Russian Orthodox Church, the emergence of American rule in 1867 had far-reaching effects in the Aniakchak area. The fur trade experienced a small but unsustainable boom in the beginning of the American period, as the Alaska Commercial Company and other American-based commercial interests rushed into Alaska to resume intensive hunting in the wake of the Russian departure.

The late 19th century witnessed a rapid economic transformation of the Pacific coast of the Alaska Peninsula. The American fur industry created a momentary boom but, by the 1880s, sea otter and other fur-bearing species of the coastal zone appear to have declined to such low numbers that commercial exploitation was no longer viable. In 1882, in a final attempt to retain a vital role in the fur trading economy, the Alaska Commercial Company established the Semidi Propagating Company. Semidi established fox farms on the islands and islets surrounding the Alaska Peninsula,

maintaining these until the Depression; individual families continued this practice following the collapse of Semidi (see Johnson 2005).

During this time, Sutwik Island also served as the seasonal residence of Alutiiq and non-Native sea otter hunters, who dwelled in semi-subterranean sod houses on the Island. These hunters also reportedly hunted bear and caribou in the area, perhaps in the Aniakchak area, and using these animals for trade in addition to sea otter (Porter 1890: 73). In the 1890s, the Alaska Commercial Company established a trading post on Sutwik Island. This store served as a focal point of considerable commercial activity, including the purchase of caribou, otter, fox, wolverine and mink pelts from Native hunters. Through the 19th century, the Sutwik Island trading station likely brought a number of Native Alaskans from elsewhere, including but not limited to Alutiiq people, into close proximity with Aniakchak. It is reasonable to assume that, even as fur trapping and hunting declined in the region, specialized trapping and other activities relevant to the operation of the trading station became more common at Aniakchak during this time - regrettably, there is little specific evidence on this point (Johnson 2005; Tuten 1977).

In the absence of fur trapping and hunting opportunities, Native Alaskan communities in the area, once again, were left without a sustainable source of cash income. Many of the commercial operations that supported the fur trade vanished as well. The Pribilof Island seal hunting operations, managed by the Alaska Commercial Company, generated significant employment for residents of the Alaska Peninsula in the 1870s-90s; for a brief time, the seal hunts offset some of the shortages in employment opportunities caused by the fur industry's decline. However, the discovery of gold elsewhere in Alaska during the late 1890s quickly undermined both trapping and sealing interests in turn. Non-Native labor and capital relocated to points north and east of the Peninsula, effectively creating an economic vacuum on the Alaska Peninsula. As seal populations began to decline and non-Native labor became scarce, even the Pribilof Island seal operations were soon abandoned (Norris 1996; Tuten 1977).

Yet, even as marine mammal stocks were depleted, and labor and capital moved in and out of the area, commercial salmon fishing was poised to become a keystone of the region's cash economy. By 1882, a commercial cannery had been constructed in Karluk, on the west coast of Kodiak Island. In 1888, as salmon numbers began to wane in the Pacific Northwest, the Fisherman's Packing Company of Astoria, Oregon, dispatched an exploratory fishery to the Chignik area. Following a very productive season of fishing, this Company returned to the area in 1889 and constructed a cannery on Chignik Lagoon. Two other commercial canneries were constructed in Chignik over the next few years, employing large numbers of Native Alaskan laborers (McKeown, 1960; Moser 1899: 144-71; Opheim 1884: 24-29). By 1892, these three canneries joined the Alaska Packers Association. Elsewhere along the coast, companies established salteries for preserving herring and other fish - operations that

generally did not endure for long. While non-Natives dominated both cannery employment as well as the boat fishery at this time, Native Alaskan communities in the study area played an essential role in the new canneries. Most Native Alaskans involved with the canneries during this period found employment independently running beach and purse seining operations, and then selling their catch to the canneries. ¹⁵

Soon enough, the canneries began to reshape certain aspects of Alutiiq social and economic life. The arrival of non-Native labor to run the canneries and fishing boats resulted in a growing number of inter-ethnic marriages in the late 19th and early 20th century. Some smaller villages effectively disbanded, regrouping around cannery settlements such as Chignik Lagoon; in other cases, families began to take up dual residences, with a permanent home in their home village and a seasonal home or campsite adjacent to the cannery (Tuten 1977: 28-31). This pattern of dual residency has persisted in some families into the present day, though it has diminished somewhat as some families have relocated permanently to cannery communities (ADF&G 1985: 458). The enduring split between Alutiiq subsistence and commercial fishing practices effectively emerged along with the development of the canneries, as families increasingly had to divide their seasonal activities and residence patterns between the two pursuits (Befu 1970).

Cannery operations also had a number of indirect impacts on resource use within the region. The records of the period of early cannery development mention employees hunting for caribou, moose and other game as a food source for Native and non-Native residents of the cannery settlements; exploration for coal sources along the Alaska Peninsula; and the establishment of fish traps - including fish traps within what is today Aniakchak National Monument and Preserve. The Alaska Commercial Company sometimes sponsored trapping for furs on the Alaska Peninsula during lulls in the salmon runs.

By all accounts, the late 1910s and 1920s were a pivotal period for the Alutiiq people of the Alaska Peninsula, resulting from a diverse range of technological and economic changes, natural and human disasters, and new waves of immigration. The increasing efficiency of industrial canneries allowed for the expansion of the canneries, facilitating the first large-scale Native participation in cannery operations. The availability of wood, non-Native tools, and other goods imported for the canneries facilitated the rapid abandonment of the traditional sod house. ¹⁶ Also during this period, gasoline-powered boats became readily available, allowing for Native Alaskan entry into the commercial fishing fleet for the first time. Still, non-Native fisherman from both local and distant communities often continued to dominate the fishery. Native and mixed families increasingly took on work at the offshore fox farms, which were now accessible to them by boat.

The increased availability of gas-powered boats - beginning in the 1920s and accelerating through the post-War period, allowed a revolutionary change in the ways that Aniakchak could be used or accessed - both by seasonal residents, but also by members of those families that had permanently left the Aniakchak area in search of cannery employment. For example, with the arrival of gas-powered boats, trappers appear to have intensified their use of the Aniakchak area and some constructed modest cabins in what is today Aniakchak, where they lived seasonally between commercial fishing and other duties in the cannery towns. These trappers included Charlie Olsen (whose trapping operation was based on Amber Bay), Adolph von Hemmel (whose trapping operation was centered at the Aniakchak River mouth), and Charlie Weederman (who had a cabin on both Aniakchak Lagoon and on the western side of Aniakchak Bay) (Morseth 1998, 2003; Tuten 1977). These trappers acquired furs in various parts of what is today Aniakchak, and shipped them out on the steamer ship that carried mail to the communities of the Alaska Peninsula, These men commonly sent furs directly to retailers such as Sears and Roebuck or the Maas and Steffins Fur Company, in exchange for either cash or credit for items that could be purchased remotely using store catalogues.

In other cases, gas-powered boats allowed some families to live full-time at Aniakchak, even as their economic fortunes were tied to the canneries some 40 miles distant. In 1917, the Alaska Packers Association constructed a fish trap and bunkhouse on the Aniakchak River estuary. Gas-powered boat travel was sufficiently convenient that this fish trap, one of several, was established so that a single operator could provide regular shipments of fresh fish to the Chignik canneries in a small boat. The Carlson family was given the job of regularly shipping fish between this fish trap and the Chignik canneries - several members of this family served as interviewees for the current project. Living on Kumlik Island, the Carlsons tended to the fish trap in the summer while spending their winters trapping wolf, fox, lynx, wolverine, and mink in what is today Aniakchak - a practice that they continued for decades (Morseth 1998; A. Carlson, in Tuten 1977: 32). While the cash earned for pelts and for services to the Alaska Packers Association provided access to a number of goods, subsistence hunting and fishing in what is today Aniakchak National Monument and Preserve remained a core of the Carlson's household economy.

During the same period, outside laborers, especially from Scandinavia, arrived in large numbers and intermarried with local Alutiiq and Russian-Alutiiq families. Scandinavians had begun arriving in the region as early as the 1870s to participate in the commercial fishing industry. A second and much larger wave of Danish, Norwegian, and Swedish immigration arrived in the years between 1900 and 1930, with men arriving to participate in the cod, herring, and halibut fisheries, as well as reindeer herding. A steady procession of interethnic marriages soon followed, as many of these men married women from local Native Alaskan communities that had been disrupted by the demographic upheaval of the period (Mischler and Mason 1996). The descendents of these interethnic families continue to play a very important role in

the social and economic life of Native Alaskan communities today. As many writers have noted, even today the villages of the area continue to blend Alutiiq tradition with those of the Scandinavians, as well as the Russian American settlers who intermarried into local communities:

"Foods, customs, and seasonal patterns of resource utilization all reflect their multi-ethnic heritage" (Tuten 1977: 38). 17

Beginning in the 1910s, a government-supported reindeer herding "experiment" was initiated to supplement Native Alaskan economies. Herds of reindeer introduced to the area provided an incentive for expanded immigration by Scandinavian and Inupiaq men, especially, as well as providing modest economic opportunities to some resident families. By the 1930s, however, this experiment was beginning to fair, plagued by heavy predation by bears and wolves, ownership disputes, scheduling conflicts with subsistence tasks, and the like. By 1945, the herds had largely disappeared or been absorbed into the native caribou herds (Partnow 2001: 232-34). Simultaneously, in addition to spurring expanded Scandinavian immigration to the area, this experiment fostered new associations between the Inupiat and the peoples and places of the Alaska Peninsula.

Meanwhile, the eruption of Novarupta in June 1912 resulted in the destruction of two Alaska Peninsula coastal villages, Katmai and Douglas, at least one saltery, as well as causing significant interruptions of economic and subsistence activities in other communities of the Peninsula. (the interior village, Savonoski was also abandoned due to the eruption). Initially, residents of Katmai and Douglas were evacuated to Afognak. These families then returned to the Alaska Peninsula and established the new village of Perryville, which was named for the captain of the ship that carried them there from Afognak (Partnow 1993; Erskine 1962). In this new place, the residents of Perryville reestablished a mixed economy, working in commercial fishing and subsistence hunting in this new land, known to them but beyond the range of their historical subsistence areas. This was a time of transition along the entire Peninsula. As Partnow notes,

"By the fall of 1912 the large fur companies had closed their posts on the peninsula, the Kaflia Bay saltery was destroyed, Katmai survivors were living in new and unfamiliar areas, and few Alutiiqs were part of the fishing industry in the Chignik area. Most people continued to feed, clothe, and shelter themselves much as their ancestors had done by hunting and trapping animals and gathering plants" (Partnow 2001: 220).

However, beginning in 1918 and continuing well into the 1920s, another kind of disaster would take a much greater toll on the residents of the Alaska Peninsula. The influenza pandemic that swept around the globe had especially destructive impacts in this part of Alaska, where Native Alaskans appear to have been especially susceptible. Entire families succumbed to the illness, and its effects uprooted entire communities. Ironically, the influenza pandemic disproportionately killed young adults, leaving tremendous numbers of Native Alaskan orphans - some adopted by non-Natives in Alaska and elsewhere. In the end, the epidemic compounded a number of the social disruptions of the previous century, with such results as the abandonment of certain small settlements, reconsolidation of Alutiit in larger villages of families originally hailing from several communities (Fortuine 1989). The separation of families was compounded by the emergence of residential schools, under the direction of the Office of Indian Affairs in Juneau, almost immediately after the epidemic's conclusion (Befu 1970). These developments, coupled with a growing range of scheduling conflicts with subsistence tasks, resulted in increasing interruptions to the transmission of traditional knowledge between generations. As opportunities for teaching traditional knowledge and skills to children decreased, the cultural traditions of the Alutiiq were threatened like never before.

During the 1930s, the revolutionary effects of the salmon canneries were compounded by the arrival of seine nets that could be carried aboard fishing boats. While the Great Depression effectively killed the fur trade and depressed cannery output somewhat, Native Alaskan participation in the commercial fishery expanded with the seine fishery. During this period, with many families fishing the coastline while still relying heavily on subsistence resources, the use of terrestrial resources in Aniakchak may have approached at its 20th century peak: "the people of Chignik recall hunting caribou along the Aniakchak coastline and picking berries from its shores" (Tuten 1977: 34).

During World War II and immediately thereafter, new people and new technologies entered the region for the first time, rearranging traditional economic and social relationships. Air bases constructed at Port Heiden and several locations on the Gulf of Alaska brought unprecedented numbers of outsiders to the region. During World War II, a number of families relocated in response to the militarization of the Alaska Peninsula. Some families that had still held out in the smaller communities of the Peninsula relocated to cannery towns along the coastline, such as Chignik Lagoon, seeking employment, while others left the area altogether.

Hunting and fishing traditions, and indeed the entire Alutiiq diet, adapted very quickly to changing circumstances through this period. Immediately before WWII, the supply of commercial goods was very limited and intermittent. At most, it was "limited to a few kinds of canned goods, lard, potatoes, salt, tea, sugar, flout, and a few other things" (Befu 1970: 31). With the exception of these commercial items and a few vegetables grown in their gardens, most families relied principally upon subsistence resources. In the wake of World War II, however, everything changed: commercial

foods became available in unprecedented quantities, along with small motorboats, tools, and other goods. At the War's end, trapping remained depressed in response to both reduced fur prices and the competing demands of alternative employment and schooling. Fishing technologies continued to expand rapidly, as larger, faster boats became commonplace and Native Alaskans became full participants in the commercial fishing economy. 19 By the late 1950s, some families earning cash income from fishing had the option, perhaps for the first time, of relying almost entirely on commercial foods and other goods. By the 1960s, only a few elders could recall firsthand the traditional sealing, whaling and other hunting by kayak:

"There are still some villagers who can recall the days when they paddled kayaks and harpooned whales. But they are few, and very old" (Befu 1970: 30).

By this time, commercial fishing and crabbing, trapping and "government subsidies" had become the principal sources of income for many Alutiit (Befu 1970: 32-33). By the close of the century, most Alutiit were inextricably tied to the American cash economy and were principally dependent on commercially available foods, supplemented by subsistence fishing, as well as hunting for seal and sea lion, caribou, moose, and brown bear. Nonetheless, in addition to being culturally significant, the persistence of subsistence economies and traditions appears to have provided stability and security in the face of continued booms and busts in the commercial economy that continue into the present day.

Alutiiq Identity and Cultural Persistence

Despite over 200 years of cultural exchange, economic transformation, and social integration with the non-Native community, Alutiiq identity and culture has proven remarkably resilient. This may be attributed, in part, to a continued sense of distinctness from the non-Native world and especially the values of non-Native Alaskans. Speaking of the Alutiiq community in Old Harbor, Befu (1970: 41) notes

"The inhabitants of Old Harbor have come a long way from the aboriginal way of life. Processes of acculturation have made deep inroads into the native way of life...But it still retains to a considerable degree patterns of aboriginal living. More important, natives retain their self-identity as Eskimo, setting themselves apart from the white world....In the final analysis, then, we may conclude that Eskimos of Old Harbor recognize themselves as Eskimo and not as Americans, and that this self-identification is based on a value orientation toward life

which is fundamentally different from that of the majority American" (Befu 1970: 42).

This distinctive identity has become more visible in recent years, as Alutiit have revived certain aspects of their culture, taken others out of hiding, and have sought to carve out an enduring cultural niche within the larger cultural landscape of Alaska. In this effort, the Alutiiq revival has paralleled developments that reinvigorated other Native Alaskan communities, Native American communities and, indeed, indigenous communities worldwide over the last few decades.

This is not to suggest that all Alutiiq cultural practices are the product of a recent revival. Prior to this revitalization, some scholars documented the retention of distinctive cultural and social traditions despite considerable integration into the economies and religious institutions of the Euro-American world. Available evidence suggests a considerable vitality of traditional beliefs and practices, long after the circumstances of contact were widely assumed to have extinguished these traditions (Cromwell 1992). On the basis of his observations in 1851, Holmberg claimed that

"Few of the customs and rites of the Koniags, their shamanism, and their religious views now persist...[yet]. Even now there are, among the Koniags, a number of medicine men who have inherited their art from their fathers. They know various herbs, as well as internal and blood-cleansing concoctions, which can also be applied to wounds externally" (Holmberg 1985: 51, 54).

Writing roughly 115 years later, Befu (1970: 38) suggested of the Kodiak Island Alutiit that "The aboriginal belief system of the natives is almost completely gone, the Russian Orthodox church having supplanted it for generations," but that a number of cultural traits persisted. These included use of the language, the retention of aboriginal kinship patterns, various rituals tied to childbirth and death, and certain persisting attitudes toward authority figures or economic relationships. Other writers have noted persistence in the social structure and dynamics of Alutiiq societies - even in families of mixed Alutiiq heritage. Mishler and Mason (1996: 268) note that these communities have found novel ways to express very old sentiments; Alutiiq communities are, for example, still represent highly ranked societies but "Fishing boats have replaced labrets as markers of social status" (Mishler and Mason 1996: 268). And, as specialized forms of knowledge were historically passed from generation to generation within loosely structured "guilds" - such as whalers, herbal healers, or shamans, and others - so too today, the Alutiit participate in the intergenerational transmission of such family knowledge as the methods of herbal healing, or commercial fishing techniques.

Herbal healing traditions have persisted in Alutiiq communities, especially as part of women's traditional medical knowledge and midwifery practices that persist in some communities (Mulcahy 2001, 1988). Consistent with pre-contact gender roles, these practices appear to have especially persisted among the women of the Alutiiq community. Mulcahy (2001) in particular, has explored this theme among the modern Koniag, focusing especially on the Kodiak Island healer Mary Peterson. Befu (1970) also noted the continued importance of a traditional healer - a woman who was sometimes flown to various communities to provide medicinal help. Using "medicine from the land" – herbal therapies and other traditional techniques, these practices have been remarkably resilient in the face of religious conversion and technological change. The therapeutic use of sweat lodges (*banyas*) is widespread in these communities, reflecting Alutiiq traditions tied to the *maqiwik* sweat lodges, as well as introduced Russian and Scandinavian sauna traditions.

Some have argued, too, that Native Alaskan elements are locally incorporated into Russian Orthodox practice, while certain indigenous ceremonial traditions persist outside of Church venues (Oleksa 1987, 1982). For example, the Russian Orthodox Christmas tradition of *Slawiq*, or "starring" incorporates aspects of these earlier traditions, involving the use of masks and feasting. Social events associated with *Slawiq* sometimes take place at a community house, similar in significance and function to the ceremonial houses used at contact. Indeed, some have noted that aspects of Russian Orthodox belief resonated with certain key themes in Alutiiq spiritual values, facilitating the adoption and integration of Orthodox beliefs and practices in the 19th century (Oleksa 1987). Some scholars also note that the inclusion of Native Alaskans in key roles within the church contributed to the conversion and retention of the larger Native Alaskan community (Smith 1980). As the Russian Orthodox Church has not maintained the same degree of significance among non-Native Alaskans, participation in this Church has sometimes been depicted as emblematic of Native Alaskan identity (Rathburn 1981; Davis 1970).

While the cultural traditions of the Alutiit were still intact to some degree, legislative developments of the late 20th century helped to coalesce Alutiiq culture, political life, and identity in ways that were scarcely conceivable a generation before. For example, the Alaska Native Claims Settlement Act of 1971 (ANCSA) fostered a shift in some families' identities, so that some of mixed ancestry who identified as "Creole" or Russian, for example, began to identify more as Native as they were enrolled in the Native corporations (Partnow 2000; Mischler and Mason 1996). Moreover, some have suggested that ANCSA fostered political unity between groups of villages that arguably enhanced these communities' shared identity as a group. In the wake of the ANCSA, the Alutiiq villages of the Prince William Sound and Lower Cook Inlet became part of Chugach, Inc., those of Kodiak Island became part of Koniag, Inc. The five Alutiiq villages on the Alaska Peninsula - Chignik, Chignik Lake, Chignik Lagoon, Perryville, and Ivanof Bay - became part of the Bristol Bay Native

Corporation. The segmentation of the Alutiiq world in this way has fostered increased coordination of cultural activities within Kodiak Island, while fostering increased integration with communities that were once outside of the Alutiiq sphere for the Bristol Bay Native Corporation villages in particular (Davis 1979).

Similarly, some have suggested that Alutiiq cultural revival has been significantly reinforced by catastrophic social events that have been shared by members of various Alutiiq communities, and that have required periods of inter-village cooperation to overcome. The influenza pandemic, the forced institutionalization of children, and community challenges emerging from substance abuse have all been said to play a role in the reassertion of Alutiiq cultural identity and in the search for Alutiiq administrative autonomy (Pullar 1992; Fortuine 1989). So too have specific natural disasters, including the Katmai eruption in 1912, the Good Friday earthquake and tsunami of 1964, and the Exxon Valdez oil spill of 1989 (Partnow 1993). 20 These events not only cause people to relocate between villages, facilitating continued kin and social networks between communities, but also provide opportunities for group action and cooperation in the face of looming external threats. No doubt, these external threats have continued to the continued strong social and kinship relations that are apparent between the Alutiig communities of the Peninsula, and between the Chignik villages and Kodiak Island communities. ²¹ And, no doubt, these kinds of destructive episodes occurred intermittently long before European peoples first beheld Alutiiq territory.

In addition to a general change in community sentiment, the last two decades have witnessed a blossoming of formal Alutiiq cultural preservation or restoration efforts.²² These have included Alutiiq language programs, growing attention to Alutiiq art both locally and elsewhere, and the proliferation of traditional Alutiiq craft traditions. Cultural revival within area Native Alaskan communities of the area has also been manifested in an increasingly direct role in archaeological research and an expanding role in the repatriation of human remains under the Native American Graves Protection and Repatriation Act of 1990 (NAGPRA). Certainly, participation in archaeological and NAGPRA efforts has been facilitated significantly by the passage of certain federal laws, yet not entirely possible without the continued or renewed interest of Native Alaskan communities (Knecht 2000; papers in Bray and Killion 1994).

SETTLEMENTS AND OTHER SIGNIFICANT PLACES

In the course of interviews, project interviewees mentioned a number of settlements and named places within the study area. While settlements and placenames were not a focus of focused or systematic investigation, the data on these themes reflects considerable first-hand knowledge of Aniakchak within the communities outside of the Monument and Preserve. Several interviewees either lived in what is today ANIA, or are the children or grandchildren of people who lived there in the early 20th century.

Certainly, in times past, small and enduring settlements have dotted the Aniakchak coastline. Yet by the 19th century, permanent settlements were not reported in Aniakchak; the nearest settlement reported in the historical literature is village called "Sutkhum" on Kujulik Bay, noted by Voronoffski and cited in an 1869 U.S. Coast Survey (Davidson 1869). Occupation of Aniakchak by this time appears to have been largely a seasonal activity, and restricted to a small number of families. The causes of the apparent exodus from the Aniakchak were many, including the demographic turmoil of the Russian period, the rise of commercial canning in the late 19th century, and the influenza pandemic of the late 1910s and early 1920s. By the mid-20th century, most families that had historically resided in Aniakchak, permanently or seasonally, had relocated to nearby communities. Most of those families that remain appear to have relocated to communities sitting roughly forty miles southeast of the Monument and Preserve. There, one finds the three communities sometimes referred to as the "Chignik villages," including Chignik Lagoon, Chignik Lake, and Chignik Bay.

Despite a number of historical changes, these communities have maintained a particularly strong historical connection to the coastal zone of Aniakchak, which has continued to served as a seasonal outpost and subsistence hunting area for families that once lived there for much larger spans of the year. Some families retained ownership or use of their former homes in the study area into the mid- to late 20th century, storing tools, guns, fishing gear, and other items there and using them as hunting and fishing camps after their departure. (MS)²⁴ Some of these cabins were removed by the NPS after the agency took over management of the area. Others have become dilapidated after years of abandonment, or of intermittent use and repairs. As the use of cabins has declined, seasonal use of Aniakchak has adapted and persisted, with many of these families now accessing the Monument and Preserve from boats and temporary encampments. (MG) Often, these visits from boats, or temporary camps, are situated in the historical location of a family's former home or cabin, suggesting an enduring significance of particular places, even long after the home or cabin has disappeared.

Most of the settlement sites mentioned by interviewees line the coastline of Aniakchak. For a number of individuals, Aniakchak seems to be conceived of principally as a coastline of enduring interest, with a few trails and rivers providing hunting and trapping access from coastal communities. The interior is comparatively unknown to many interviewees. (MG) Food resources, some note, were abundant in the coastal locations, while firewood and building materials were readily available in the form of driftwood along the shorelines. Only certain communities, families, and individuals appear to have used interior portions of Aniakchak historically. In recent years, access to these interior areas has increased with the use of ATVs. Predictably, interviewees who are regular ATV users provided the most detailed information regarding recent uses of the interior of the Monument and Preserve. 26

Aniakchak Bay

Of all the places mentioned by interviewees as being historically and personally significant, Aniakchak Bay is perhaps the most prominent. Aniakchak Bay was a center of settlement and subsistence activity historically, and continues to be an important seasonal hunting and fishing area for some Native Alaskans, especially the residents of the Chignik villages, today. A number of interviewees mentioned personal associations with sites along Aniakchak Bay, especially the Lagoon and the mouth of Aniakchak River. The Aniakchak area continued to be an important seasonal use and habitation area for some families well into the last half of the 20th century - some families still stayed at Aniakchak through the summer, well into the period immediately preceding designation of the Monument and Preserve.

The Carlson family receives especially frequent mention as residents of Aniakchak Bay. The Carlson family resided at Lost Harbor, on the north side of Cape Kumlik. Their traplines extended eastward along Cape Kumlik from Lost Harbor. The family lived in their Lost Harbor home during the 1940s, staying through the wintertime. In addition to trapping, the family also helped maintain commercial fish traps on Aniakchak Bay prior to World War II.²⁷ The family also had a cabin near the mouth of Fish Creek; this stream has a major pink salmon run that was apparently fished by this family and bear trails are said to converge along the creek where the bears feed on fish. The family's *barabara* was reportedly constructed of both driftwood and milled lumber, with a grass thatch roof. Other individuals mentioned in the course of the study, such as Vivian Erickson, were raised near the mouth of Aniakchak River. (HB)

The Lagoon, however, was a particularly important center of settlement for interviewees and their families. Pete and Annie (Brandal) Pederson and Harold and Helen (Pedersen) Nielsen had homes on the Lagoon early in the 20th century, while Carol Neilson, mother of interviewee Kris Carlson, lived at the Lagoon as a child. (KC) A number of families reported that they lived on the Lagoon at Aniakchak Bay during and after the commercial razor clam harvests took place in that area the 1930s. The clam cannery, apparently founded by entrepreneurs from Kodiak, packed clams from Aniakchak's beaches; it was not successful and closed within a few years, possibly due to the cost of shipping, localized depletion of the razor clams, and other

factors (Norris 1996; Tuten 1977: 34). Following the closure of the cannery, Rudolph, Edwin and Axel Carlson reportedly moved to the Lagoon, probably in 1934, and took up residence in the cannery. They boarded off living quarters at one end of the cannery and used the rest of the building to store traps, nets and gear. Rudolph and Tina Carlson spent the winter of 1940-41 living in the clam cannery building after their first year of marriage, along with the other Carlson brothers. Tina reported that she was afraid to leave the cannery because of the bears and stayed in and near the cabin constantly during their stays. (TC) Once they began to have children, they left the remote Lagoon and moved to the community of Chignik Lagoon.

As noted earlier, following relocation to Chignik Lagoon and other nearby communities, some families continued to use the Lagoon as a base of operations for activities within Aniakchak. Rudolph and Tina Calrson, after their move to Chignik Lagoon, raised 10 children while apparently using the clam cannery building as a seasonal base of operations during visits to the Lagoon for hunting and trapping. Tina Carlson recalls that this was challenging, as they had to haul water, wash diapers by hand, and they had to be very frugal, not wasting anything. The other Carlson brothers used this building as a base of operations for trapping in the Aniakchak area for several winters, and were sometimes joined by other young men such as Billy Johnson, Randius Sand, and a man from the Kalmakoff family. (AC) ²⁹

Aniakchak Bay, generally, provides good shelter for small boats and a point of access into the interior along the Aniakchak River. Aniakchak River has served as an important travel corridor into the interior of Aniakchak and to the Bristol Bay side of the Alaska Peninsula. When traveling to and from Port Heiden and other points on Bristol Bay and the west or northwestern sides of the Aniakchak Caldera, travelers have followed the Aniakchak River, passing through the Meshik Lake area and then descending down the Meshik River. Another land route apparently followed the Aniakchak River upstream, crossing over into Lava Creek and descending into Cinder River en route to Bristol Bay and the northeast and northern sides of the caldera.

Sitting on the southwest side of Aniakchak Bay, the Lagoon marks the south end of the long beach at the head of Aniakchak Bay, commonly called "The Boulevard." The Boulevard provided an important land route between family settlements (at the Lagoon and the mouth of the Aniakchak River. Use of "The Boulevard" was noted in passing by a number of interviewees whose families had lived, trapped, and hunted at Aniakchak.

Some consultants made reference to Kumlik Island, a prominent island at the entrance to Aniakchak Bay off the eastern end of Cape Kumlik, in their interviews. Axel Carlson, Sr. had a fox farm on this island in the 1920s and 1930s and built a house there. The Carlson family lived there much of the year, but moved to the mainland during trapping season. Carl Carlson was born there, at the "blue fox farm house," in the 1930s. He later moved to Lost Harbor on the north side of Cape Kumlik, probably

during the Depression when the fur market collapsed and fox farms were widely abandoned along the Alaska Peninsula coastline. It is noted that currents can be swift and dangerous between the mainland and adjacent islands, but bears reportedly swim to and from Sutwik Island from the mainland. Sutwik Island is sometimes locally known as "Axel's Island."³¹

Aniakchak Caldera

While the terrain in and around the Aniakchak Caldera was difficult to access historically and has been rearranged dramatically by historical eruptions, it is still an important landmark and is occasionally visited by interviewees and their families. In particular, ATV users, especially residents of Port Heiden, sometimes hunt the north and northwestern flanks of the caldera. (JC, EC) A number of ATV trails access the caldera from the Port Heiden area. Snowmobiles are also sometimes used to access the caldera at certain times of the year. Emil Christensen reports that there are three principal trails leading into the caldera, but that the snow has to be at just the right depth to allow easy snow-machine access. When he lived in Port Heiden, he and two friends blazed one of these ATV trails from Caribou Cabin to the caldera using machetes and 3-wheeler ATVs.³² He has used this trail and possibly other routes to access the caldera for many years. (EC)

ATV travel is said to be easy once on the "plateau" adjacent to the caldera, due to the large areas of exposed and largely level rock surfaces. (Pilots also noted that the large exposed rock areas allowed for easy landings when bringing hunters to the caldera.) Vegetated areas in-between these rocky exposures commonly serve as foraging areas for caribou in the summer and can be easily hunted - the caribou that graze there are said to be especially large. Access to these high elevation areas is seasonally restricted due to the difficulty of access by ATVs or snow machines. Johnny Christensen is said to have a hunting camp "up on the plateau," probably on the northwestern flank of Aniakchak caldera. (JC)³³ A small number of individuals appear to visit the caldera simply to explore, while traveling to and from hunting areas elsewhere.

Kujulik Bay and Vicinity

A number of interviewees had contemporary and historical associations with sites in and around Kujulik Bay. A settlement at the estuarine mouth of North Fork Creek, commonly called "North Fork," appears to have been the principal settlement on Kujulik Bay in the early 20th century. The community was home to several families in the 1930s, and continued to be occupied through the 1950s. During World War II, however, many families relocated from this community to Chignik Lagoon and other nearby settlements. These families, including children, continued to stay at North Fork seasonally in the post-War years, using their former homes as a base of

operations for trapping, hunting, and some fishing in what is now Aniakchak These families continue to maintain ties to the North Fork area today, sometimes visiting for subsistence hunting or fishing and, perhaps, visiting the site due to its personal and historical values to family members.

The Brandal family provided the most detailed information regarding their associations with this area. Alec Brandal (b. 1934) and his siblings were raised at North Fork on Kujulik Bay by his parents, who had lived there prior to his birth. His family continued to live and trap there until they relocated to the Chignik Lagoon area during World War II. Vivian Brandal reported that her family returned to their North Fork cabin in the 1940s, when she was a girl. Her family resided next to the cabin owned by the Grunert family. During the same period, some families appear to have still resided seasonally on Sutkum Bay, including that of Alec Brandal. Vivian Brandal recalled children making dolls out of bull kelp while they stayed at their cabin on North Fork. Alec Brandal still had a 160-acre allotment at North Fork at the time of his 2002 interview. Hank Brandal reports that he still hunts in and around the family's allotment.

Other families, in addition to the Brandals, lived in the North Fork area in the first half of the 20th century. The Anderson family and Viola and Clemens Grunert lived in this area during the same period as the Brandals and non-resident family and friends sometimes stayed at the Grunert home during this period. (AB, VB, JA) Hank Brandal recalled that the Grunerts and Andersons dwelled next to one-other at the mouth of river, while the Brandals' home sat a short distance up-river from them. ³⁴ Henry and Lillian Erickson, grandparents of interviewees Henry and Ray Erickson, also lived on Kujulik Bay during this period. (HE, RE) Other families may have lived there, but there was no clear evidence of this in the project files.

Trapping cabins were found at other freshwater outlets around this bay, and the bay's small tributary stream basins were apparently trapped from these cabins. Alec Brandal had a trapping cabin at the mouth of Skunk Valley, which descends into Kujulik Bay. Harry Harris had a home site at Taps Point, near the mouth of Rudy Creek; later George & Madeline (Sanguinetti) Harris lived there too. At times, Edwin and Laura (Sanguinetti) Carlson, Axel Carlson, Johnny Wallin, and Rudy and Tina (Wallin) Carlson wintered at Taps Point too. Spiridon Stepanoff had a cabin off the west point of Cape Kumlik, near the Bay's entrance. (MG)³⁷

On Kumlik Point, across from Rat Island, Hook Bay was home to a number of individuals in the early 20th century. Carl Carlson reported that a number of individuals, including Rudy, Tina, and Axel Carlson, and Charlie Wallin, lived there when he was a boy in the 1930s. Ray and Henry Erickson indicated that their father lived in Aniakchak when trapping and that the remains of his cabins can still be seen at Hook Bay and Kujulik Point. "Smokey Chris" was said to live in Aniakchak in the 1970s, perhaps at this location; his father used to smoke moose meat at Aniakchak and

later used portable canning devices to preserve meat at his cabin. (RE) While the old cabins apparently have become dilapidated, small number of individuals apparently still maintain seasonal hunting camps there today.

Most consultants spoke of accessing these communities by boat. However, a few land routes were also mentioned. Western Kujulik Bay communities apparently accessed the Meshik River area through two principal routes, including the Black Pass, thence down Black Creek to Meshik River, or up Bear Creek, over Portage Pass, and down Violet Creek to Meshik River. The beaches appear to have provided foot access between cabins and between communities, especially at low tide.

Local vernacular placenames associated with Kujulik Bay exhibit potentially confusing variability. In particular, local communities use different designations for different parts of Kujulik Bay. The eastern portion of the bay is sometimes known as "North River" or "North Fork," while the relatively shallow western extension of the bay is simply called "Kujulik" by some interviewees. Some consultants were more familiar with the western "Kujulik" area, due in part to its distance from their settlements at Aniakchak. The "Kujulik" area was depicted as being more proximate to Perryville and Chignik Lagoon, and more within the historical use area of those communities. Accordingly, Carl Carlson noted that the western "Kujulik" area was a convenient rendezvous point for people from those communities, and he sometimes joined his older half-brothers there when he was younger, when trapping or carrying out other tasks in what is today Aniakchak. (CC) Kujulik Bay is also sometimes called "Sitkum Bay," "Sutkhum Bay," or "half bay," possibly a reference to the relatively narrow and shallow western appendage of this bay. In Chinook Jargon, "Sitkum" is sometimes used to refer to landscape features that are small or relatively insignificant compared to other features of their type; less frequently, it might refer to a feature that is located at a halfway point. Kujulik Point, also called "Sutkhum Point" refers to the eastern-most point of land on Cape Kumliun. Sea otter hunters used the area between Kujulik Point and Sutwik Island, and Kujulik Point is the possible site of "Sutkhum village," which was both a settlement and a fur trading post. Graveyard Creek flows into Kujulik Bay roughly 3/4 mile west of Rudy Creek and project notes suggest that this creek may have been named for "Harris' daughter" who was buried nearby.

Meshik Lake and Vicinity

A number of individuals made reference to historical hunting and trapping near "the lake," apparently a reference to Meshik Lake.³⁸ Travel through the Meshik Lake area also was commonly reported as part of travel through the interior of what is today Aniakchak, especially by individuals hunting or trapping with dog sleds and all-terrain vehicles (ATVs). Alec Brandal, grandfather of interviewee Hank Brandal, built a trapping cabin at nearby Wedge Mountain, which is a prominent landmark from

Aniakchak Bay. He sometimes trapped with George "Bobbin" Anderson in this area. (HB) Clemens Grunert also trapped the Wedge Mountain area and was still trapping into the late 1950s with Clarence Erickson. (MG)

Trapping and other activities at Meshik Lake were potentially dangerous late in the summer, as unexpected freezes could create ice jams that back up Meshik River, causing flooding and extreme difficulty in traveling. Henry Matson recalled one trip to the Meshik Lake area in the mid-20th century:

"We went up to trap mink, but we got buggered up with that. We went to put our traps out. Freezing like everything. Jammed the river down below us. Water just backed up. Next morning we went down there the ice was all over the traps... That ice just jammed up and made a flood...it was November all right...we couldn't find [our traps] they were under the ice. It was that thick...We were Stuck... main river just below the lake...We stayed in tents... we went to pick up our camp in the spring. We didn't take it out. It was all shreds."

Project notes mention a place called "Amigaduk," at a location on Meshik River downstream from Meshik Lake, on the north side. This was a cabin site of Olaf Matson and later Martin Carlson. The exact location of this site is not identified in this project's fieldnotes.

CHANGING MODES OF ACCESS

Consultants discussed a variety of ways that Aniakchak was accessed and traversed historically. Modes of access have changed rapidly within the living memory of many of this study's interviewees, whose lives have spanned from the era of foot and dog sled travel to the modern era of airplanes and all-terrain vehicles.

Pedestrian travel received occasional mention by project interviewees. Axel Carlson recalls that people used to travel extensively by foot in the Aniakchak region in the 1930s and 1940s, passing between communities or along traplines. Grouse Valley, a small valley of the North Fork basin, at the northeast corner of Kujulik Bay, was a major travel route for this purpose, passing between the Brandal and Grunert home sites on North Fork to home sites on Meshik Lake and Aniakchak Bay. This was said to provide a less swampy route than North Fork Creek. Sometimes the high beach was used as a trail, but this was reportedly "hard walking." (AC) When traveling off of the main trails, people reportedly chose their travel routes from afar, often climbing to high promontories to choose the best route. People picked their route to avoid obstacles, such as marshy areas or dense vegetation. Bears often made trails that humans could follow, creating pathways through the alders and along the tops of bluffs, though, of course, the use of bear trails did increase the risk of bear encounters. Mike Grunert suggests that some trails originally created by human foot traffic have simply been kept compacted and free of brush by continuing bear traffic. Some historic trails in and around ANIA, meanwhile, appear to have become overgrown over the course of the 20th century.

People also formerly walked to Aniakchak from nearby communities. In the mid-20th century, Bobbie Erickson used to walk to Aniakchak from Chignik Lagoon to trap. He traveled via Ocean Beach, Thompson Valley, McKinsey Valley, and Hook Bay, across the head of Kujulik; he stayed with Alex Brandal in Norfork and then proceeded onto Aniakchak. (RE, HE)³⁹

Some consultants also recalled using dog teams until the late 1950s or early 1960s to access remote areas in the interior of the Alaska Peninsula. Carl Carlson, for example, described traveling long distances with teams of up to a dozen dogs. Teams of dogs were used when traveling to the lakes in the interior of the Peninsula, probably including Meshik Lake. Henry Matson recalled some of the hazards of dog sleds, including dogs occasionally running off with sleds or going through ice. Other interviewees, many of them too young to recall the era when dog sleds were common, had not participated in dog sled trips but noted oral traditions mentioning the use of dog teams in the area. Especially for this generation, the use of ATVs is seen as a natural progression from dog sled use, or suggest that dog teams provides a precedent for the modern use of ATVs for hunting in remote areas. (BC)

A number of passes over the Alaska Peninsula, including both waterways and terrestrial fording areas, have been noted in project interviews as well as in archaeological and historical sources such as Dumond (1987: 118). Some passed through, or very near to, Aniakchak. They included,

- 1. Chignik Bay—Chignik Lagoon—Chignik Lake to the lowlands surrounding Black Lake;
- 2. Aniakchak Bay—Aniakchak River—over the Meshik Lake pass—Meshik River to the lowlands surrounding the west and north or the caldera and Port Heiden; this trail system traveling along Meshik River past Meshik lake appears to be of considerable antiquity, and use of this route as a portage across the Alaska Peninsula is apparent archaeologically (VanderHoek and Myron 2004: 144-45);
- 3. Aniakchak Bay—Aniakchak River—over the pass—Lava Creek—Cinder River to the lowlands surrounding the caldera to the north and northeast;
- 4. Kujulik Bay—Black Pass—Black Creek—Meshik River;
- 5. Kujulik Bay—Bear Creek—Portage Pass—Violet Crrek—Meshik River;
- 6. Wide Bay—Kialagvik Creek—over the pass—Goblet Creek or Figure 8 Creek—Dog Salmon River—Ugashik Bay (this also provided access to Mother Goose Lake and King Salmon River);
- 7. Wide Bay—Kialagvik Creek—over the pass—Figure 8 Creek—Dog Salmon River—Mother Goose Lake and King Salmon River; and
- 8. Wide Bay—Kialagvik Creek—Figure 8 Creek—north to Ugashik Lakes

These routes are among those mentioned by consultants for the current study, and are indicated on the accompanying maps. A number of interviewees spoke of the increased use of motorboats in the early- to mid-20th century. Boat access allowed families who had moved from the area to maintain use of Aniakchak. Access was rapid, allowing brief visits in-between a growing list of competing time commitments during this era. Certainly, much of the historically accessible coastline, as well as the lower reaches of Aniakchak River were accessible by motorboat. Al Anderson remembers going up the Aniakchak River in the mid-20th century, in a plywood airboat or jet boat with his father and Alec Pederson, who had lived and trapped along the river. This allowed them to take brief trapping or hunting trips of one or two days, in-between other commitments. These boats also facilitated the transport of fish and game with ease, to a degree that was unthinkable during the era of non-motorized travel. In some cases, these boats also served as portable "structures" that eliminated the need for cabins or encampments. (Some families also left boats at portage sites within what is today Aniakchak. Carl Carlson's family, for example, kept a boat "winched up" at the Lagoon close to the mouth of the Aniakchak River.) Small motorized boats thus became very popular for hunting and fishing expeditions. Accordingly, the Brandal family reports using a "John boat" to trek up the Aniakchak River, probably to hunt there. Ray and Henry Erickson report taking jet skiffs up the

Aniakchak River as far as the rapids "just for fun" while fishing for salmon in Aniakchak Bay in the mid- to late-20th century. Today, despite the proliferation of ATVs and other methods of motorized transportation, motorboats continue to be popular. Families take boats to Aniakchak, anchor them close to the shoreline in the bays, and use these as their base of operations while hunting in the area. (HB)

As early as the 1930s, fur buyers were sometimes using airplanes to acquire pelts along the Alaska Peninsula. (HM) Beginning in the 1950s, some area residents began to acquire airplanes and a few began to hunt by airplane. Commonly, pilots landed and shot game from the plane, such as wolf, wolverine, and caribou. If an animal was chased long enough, it would be too tired to seek cover or continue running once the airplane landed and could be easily killed and packed to the airplane. Pilots also landed at locations on the Alaska Peninsula and set up hunting base camps near their airplane, extending hunting into areas of the Peninsula that had been largely inaccessible only a few years beforehand. Caribou and moose were often hunted by these methods, as were wolves. Noting these advantages, some families gave up dog sleds in favor of airplanes during the 1950s. (PL) Landing strips were rare in the mid-20th century, so people landed on flat ground, or on beaches at low tide: "we flew by the tide books." (PL) Airplane hunting escalated through the 1980s and early 1990s - a period of relative affluence in some area communities following several years of especially profitable fishing. During this time, hunting intensified in portions of Aniakchak that were previously too remote for regular hunting, including the caldera, and the upper Aniakchak and Meshik River valleys. By the late 1980s, fishing revenues were in decline and some individuals began to sell their airplanes. Since the mid-1990s, hunting in these areas has ostensibly declined as a result in the declining local use of airplanes generally. (BC)

Early snow machines, such as "ski-doos" appeared in area communities in the 1950s. (HM) Paralleling the adoption of airplanes, a number of snow-machines were adopted in the place of dog sleds, especially during periods of affluence brought about by lucrative cycles in commercial fishing. Like dog sleds, these machines were principally used for hunting and transportation during winter months.

All-terrain vehicles (ATVs) have had a revolutionary impact upon patterns of land and resource use in recent decades. The all-terrain vehicle is a relatively recent addition to the Alaskan toolkit. Used for transportation and hunting throughout the Alaska Peninsula, 4-wheel ATVs became widespread in the 1980s. First designed in Japan in the 1960s as a light utility vehicle that incorporated elements of motorcycles and tractors, the ATV was first introduced to America in the 1970s. Marketed as a recreational vehicle in the United States, residents of rural areas especially recognized the more practical uses of three- and four-wheel ATVs. The ATV proved to be more versatile and maneuverable on rugged or slippery terrain than tractors or trucks, while allowing loads to be carried far in excess of what had been possible on conventional motorcycles. By the 1980s, three-wheeled ATVs were becoming well-established

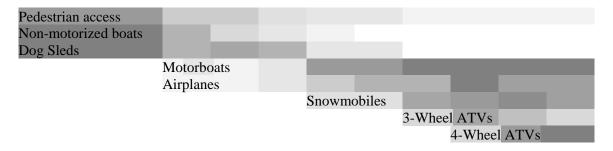
components of the American farm, as well as becoming increasingly common in rural Alaskan contexts. In the mid-1980s, after several years of assessing maintenance and market conditions, ATV manufacturers shifted their production increasingly to the safer and more durable four-wheel ATVs. By 1988, an agreement between ATV manufacturers and the Consumer Products Safety Commission prohibited further marketing of three-wheel models, citing a growing number of accidents. Since the early 1990s, four-wheeled ATVs have maintained their popularity, while design changes have generally served to increase engine power, range, and carrying capacity of most models. Specialized models, marketed for use on snow and ice, have emerged since the mid-1990s.

Interviewees note that ATVs are especially useful in the spring and fall when the ground is still frozen but snow is not a serious obstacle. During the winter, deep snows and cold temperatures restrict ATV use, while during certain times in the summer, the dampness of the ground can be a significant impediment. (MG) The widespread adoption of ATVs appears to have altered the seasonality of hunting, especially in remote interior portions of the Alaska Peninsula. They are said by some interviewees to have had a number of dramatic impacts on game species and vegetation in Aniakchak. A much fuller consideration of the impacts of ATVs upon hunting practices is included in the hunting section of this document.

TABLE 1:

AN APPROXIMATE TIMELINE OF TRANSPORTATION TYPES USED TO ACCESS ANIAKCHAK AND VICINITY, BY DECADE

1890 1900 1910 1920 1930 1940 1950 1960 1970 1980 1990 2000



Shading represents apparent intensities of use for each mode of transportation, as suggested by interview data. This chart is for illustrative purposes only - as information on this theme was gathered as a secondary line of inquiry in the course of qualitative interviews, it cannot be assumed to provide a complete or quantitatively verifiable picture of overall transportation trends at Aniakchak.

MODERN RESOURCE USE TRADITIONS ON THE ALASKA PENINSULA

Modern resource use practices in Aniakchak can be viewed as the outcome of all of the cultural and historical trajectories discussed earlier in this document. Today, Native Alaskans must chose the place and timing of their subsistence activities so as to not conflict with commercial fishing and other economic pursuits, while also providing dietary staples that are not readily accessible elsewhere. As the Alaska Department of Fish and Game has summarized for this area,

"The absence of commercial outlets and freezing units results in a continuous effort to acquire local sources of protein. Caribou or moose are greatly preferred over and imported [meat] product" (ADF&G 1985: 469).

Also, many families continue to procure specialized subsistence food products that are locally distinctive, and not readily replaced by alternative or introduced foods (Mishler 2000). Residents of the Chignik villages still hunt sea lion, seals, and walrus, for example, while also gathering clams, crab, shrimp, octopus, mussel, and chitons.

A variety of factors influence the degree to which communities utilize subsistence resources. The availability of wage employment, the cost of alternative food products, competing uses of subsistence resources, natural or human-induced changes in resource availability, and a wide range of other considerations clearly have significant influence over these practices, and fluctuate considerably over time (Tuten 1977: 4-7). While it is difficult to generalize, there is some basis for the suggestion that participation in subsistence hunting and fishing is correlated with participation in other traditional cultural activities, including continued use of Native languages. Simultaneously, the arrival of ATVs and other new technologies has allowed many families, including families that had discontinued many subsistence practices, to considerably expand their participation in subsistence tasks.

Certainly, subsistence hunting was well established at Aniakchak prior to the creation of the Monument and Preserve. For example, during 1976, subsistence hunters from the Chignik villages harvested 67 caribou, 36 moose, and a modest number of waterfowl and clams from the Aniakchak coastline. These visits usually occurred in spring or fall, at beginning or ending of salmon season. Salmon, halibut, and crab fishermen from elsewhere, especially Kodiak, were reported to use the area even more, but their exact numbers were unclear (Tuten 1977: 81). As the pages that follow demonstrate, the area continues to be used today, but in ways that have perhaps changed in scale and scope since the creation of Aniakchak National Monument and Preserve.

CARIBOU AND MOOSE HUNTING

The Aniakchak area is a hunting area of enduring importance, often visited for caribou and moose. Caribou and moose are generally the most important subsistence game in this region, with only salmon equaling these two species in their modern importance within the subsistence repertoire of the region:

"Of the variety of species utilized by the residents of the Chignik Subregion, moose, caribou, and salmon provide the greatest amount of food in terms of weight" (ADF&G 1985: 464).

Interview questions centered significantly on caribou and moose hunting tied to ANIA, and a considerable amount of information was obtained on hunting practices in and around the Monument and Preserve.

As was the true historically, Native Alaskans who hunt in the Aniakchak area primarily seek caribou. Caribou have long served as the cornerstone of local subsistence hunting, and most Native Alaskan families in the area still hunt caribou for meat. The Northern Alaska Peninsula caribou herd has continued to be one of Alaska's major herds, and a dependable source of meat to residents of the Peninsula (ADF&G 1985: 455). Despite some minor historical variability in the migratory patterns of caribou abundance, this herd's general pattern of north-south oscillation appears to have remained stable over much of the recoverable past, including the precontact past (Dumond 1977: 106). The only significant shortages of caribou appear to have been associated with particular periods of overhunting. For example, as furbearing species suffered due to the excesses of the early fur trade during the late 19th and early 20th century, caribou and other wild meats became a commodity for ship traffic for underemployed furriers, resulting in periods of overharvesting and apparent scarcity for subsistence uses on the central Alaska Peninsula (Osgood 1904).

Caribou were hunted for more than just their meat, historically. Clyda Kosbruk reports that people in the study area, for example, used to hang caribou pelts to dry them, and then use the dried pelts as "mattresses" on their floors. Caribou also played an important role in Alutiiq ceremony and cosmology, and Ronald Lind mentions that there were many rituals that centered on the caribou hunt traditionally.⁴¹

Moose are also hunted in large numbers in and around ANIA, though some consultants suggest that this may be a relatively recent development. Some interviewees, such as Axel and Carl Carlson, report that moose were absent or scarce in the area until the 1950s. This corresponds with observations in other sources, such as Tuten (1977: 38), who stated "moose began migrating to the area during the 1940s and added a new source of fresh meat for the village residents." Carl Carlson reports

that they became more numerous following a large fire on the Kenai Peninsula Wolf populations were said to temporarily increase after spikes in moose populations - a spike reportedly occurred in the wake of this fire, displacing some moose westward onto the Alaska Peninsula. (AC) Some individuals apparently do not hunt moose, but only hunt caribou and waterfowl in Aniakchak, possibly reflecting the relative historical insignificance or variability of moose hunting in this area. (HB) Others readily focused on moose hunting, noting the relative ease of moose hunting in some settings. In particular, caribou can be difficult to locate from a distance, but moose are easier to find as their antlers, once the velvet comes off, can easily be seen as they move their heads.

Historically, Aniakchak was hunted principally by the communities lying within and immediately adjacent to what is now the Monument; Kodiak Island residents also may have hunted the area extensively, as will be addressed in a subsequent section. Following the relocation of resident populations to communities elsewhere on the Alaska Peninsula in the mid-20th century, Aniakchak has retained its significance as a hunting outpost. Families that formerly lived within what is today Aniakchak continue to return seasonally to hunt. Often families return to the same general hunting areas that their families used for generations. There is no clear system of tenure to these hunting sites, but knowledge of (and affinity for) particular hunting areas appears to be passed down by male kin – father to son, grandfather to grandson.

"Usually a person will use the same area but there's no ownership. People may use other person's area."(JC)

Not all Native Alaskan hunters in the Aniakchak area, however, appear to have clear kinship ties to the area. In some cases, individuals and families from consolidated Native Alaskan communities, such as Chignik Lagoon or Port Heiden, appear to have learned of hunting opportunities in the Aniakchak area through social networks in these communities. Clearly, too, the area is hunted by a growing number of non-Native visitors, including charter hunters.

The seasonality of the hunt has changed significantly in recent decades, reflecting changes in technologies and alternative economic opportunities available to hunters. Generally, caribou and moose move into higher elevations in the summer, following grazing opportunities and avoiding the insects and heat of the lowlands. Wolves were also cited as a factor causing game to move into higher country. (MC, NO) In the wintertime, heavy high-elevation snow pushes these herds downslope, and they can be hunted along the shoreline and relatively close to villages along the Alaska Peninsula. Occasionally, moose are said to descend to the beaches earlier, in the summer, and can be beach hunted at that time. (MC, NO) Traditionally, hunting is avoided when the game animals are in rut. Moose rut after the second or third week in September, so moose meat is avoided after the first week in September. (MC, NO)

During the era of non-motorized transportation, hunting could be done by foot if close to the village or by dog sled if snow cover was adequate. Hunting in the interior of the Peninsula was relatively difficult during the warm season, when game moved upslope and snows had melted. Caribou hunting and consumption was timed accordingly. Accordingly, Carl Carlson recalled that his family had no stored meat in the summertime, when he was a boy in the 1930s and 1940s. They consumed the meat almost immediately, as they had no freezers and did not salt the meat.

More recently, the availability of airplanes, motorized boats, and ATVs has extended the geographical and seasonal range of the hunters. Year-round hunting is possible in the interior of the Alaska Peninsula, and game can be followed during their entire seasonal migration. Some hunt during times that are seen as most "traditional," but many families have begun to time their hunts to correspond with the off-season for commercial fishing.

Today, some hunt in the spring and at other times that are considered more appropriate, despite the restrictions on subsistence hunting at this time of year. Increasing mobility, largely due to ATV use, has resulted in the abandonment of some traditional hunting camps and the relocation of others. Hunters can now drive to the Monument from their homes in Port Heiden, Chignik Lagoon, and other nearby communities rather than having to stay for an extended period and butcher and process meat on-site. Former camps and cabins now reportedly lie in various stages of ruin on the landscape.

Through the mid- to late-20th century, many families have continued to go on group hunting trips, during which they acquire most of the caribou and moose meat that they will need for the following year. These trips typically involve groups of male kin. The reported duration of the hunt varies, but some families report going to Aniakchak for 3 to 5 days. (HB) Alec Brandal, for example, reports that he used to go out to the Aniakchak area every year on August 10th to start his hunt for caribou and moose. This meat was used to feed his family through the year and was salted for later use. Other families report drying or smoking meat that is acquired during their annual hunt, to keep it over the course of the following year. (Some report that caribou meat is not palatable when frozen, so they only eat the meat fresh or preserve it in another manner. (RE)) The ease of access afforded by ATVs and other motorized vehicles has allowed more casual hunting trips in recent decades. Recently, some families simply go out to hunt whenever they run low on meat, and do not participate in more structured annual hunts. Accordingly, some of the preservation techniques once employed by local families are no longer practiced, and some bemoan the loss of social and cultural dimensions of the family hunting trip. (AB)

Today, some families only hunt opportunistically, as scheduling conflicts have largely eliminated opportunities for focused hunting trips. In particular, scheduling conflicts

with commercial fishing have sometimes significantly transformed hunting patterns, so that subsistence hunting trips are seldom long-term ventures and are often undertaken while traveling to or from commercial fishing grounds. 42 Ironically, the lack of time to hunt has probably increased the intensity of the hunt along the immediately accessible shoreline as a result. While caribou were usually hunted closer to the large villages, a number of Chignik village residents report opportunistic hunting of caribou along the Aniakchak coastline coincident with the end of the commercial fishing season. The Aniakchak coastline, from Kujulik Bay to Amber Lake, is said to be one of a small number of places that are said to be predictable sources of caribou, even when the larger regional abundance may fluctuate considerably, allowing families with limited time to be assured of a successful hunt inbetween other obligations. This pattern has been noted in other reports on the area (e.g., Tuten 1977: 52), and was also noted by interviewees for the current study. Ernie Carlson, for example, noted that he only hunts when he is fishing, on the way to fishing sites, or after fishing season. He has hunted in Aniakchak but does not target the area unless it is coincident with the demands of commercial fishing - he only hunts where he can access game without missing out on commercial fishing. (ER) Herbert Anderson added that his father said one should only hunt for game that is easily obtained on the way home from fishing trips. If game is killed sooner it will have to sit on the boat too long before processing, as there is little time during fishing for unrelated tasks.

Native Alaskan interviewees widely perceive that game populations are on the decline in much of the Peninsula, and that caribou and moose are harder to find along the bays of Aniakchak than was the case in recent decades. "The last few times I've been out there it's been pathetic." (MG) Trophy hunting is cited as one of the causes. So too is intensified hunting by Alaska Peninsula residents in areas due to improved access by ATV and other motorized vehicles. A small number of individuals attribute some of the decline in game numbers to disturbances caused by rafters and other recreational users of the Monument: "The problem is people ["recreationists"] using Aniakchak in the summer are driving caribou away from Aniakchak Bay."(HB) Both trophy hunting and ATV use are discussed in more detail in the sections that follow.

Beach and Bay Hunting

Traditional hunting practices associated with Aniakchak are significantly tied to the coastlines, where human settlements were once concentrated. While both moose and caribou are hunted along the coastlines, moose in particular appear to be hunted in these areas. For example, all of the 1975 moose hunt reported by Tuten (1977) were along the beach, fully half inside the then proposed Monument:

"According to local sources, moose walk right down to the water and are usually killed while hunters are in their skiffs, traveling up the

Aniakchak River, and always within two or three miles of the water's edge" (Tuten 1977: 54).

"Beach hunting" is reportedly still common in and around the Monument. Large herds of caribou and moose come down to the coastline at different times. October is said to be especially good for beach hunting, as caribou can be easily found along the shorelines at that time, migrating downslope from their summertime grazing in the interior of the Alaska Peninsula.

Families traditionally hunt along much of Peninsula coastline during the fall, but the beaches of Aniakchak are recognized as being especially good hunting grounds. Consultants noted that the hunting along the bays is considered especially good because the vegetation is sparse and game can be easily spotted at a distance. Al Anderson noted that Kujulik Bay was a better hunting area than Aniakchak Bay, because the topographic relief was greater and therefore game was more visible from beaches and boats below. It was comparatively difficult to see game on the flats, for example, around the Lagoon and Black Creek. Today, people are said to hunt by boat and only within the visual range of the shoreline; they then walk or use ATVs to retrieve their game and bring it back to the boat.

All the major bays were hunted to varying degrees historically. The Aniakchak Bay area and other coastal areas were said to have had large caribou herds, which have been hunted by Native Alaskans from nearby communities.(AB) Archie Kalmakoff reported that his father used to hunt Aniakchak and Kujulik Bays each fall, along with other coastal locations. Aniakchak Bay is still hunted by a number of families today. The Lagoon is sometimes hunted, as is the nearby "Clam Beach" area. (MG) Gungas Creek, northeast of the bay, is also said to be a good hunting area. (HA)⁴³ Alec Brandal noted that there were large caribou herds on the hills southeast of the Lagoon on Aniakchak Bay in the 1990s. A number of people reportedly started hunting this area with ATVs and possibly airplanes, and these herds dispersed.

By the 1960s, moose were numerous along Amber Bay and large networks of moose trails could be seen there. (AA) At that time "you could go out and from the ridges you could count 20 or 30 moose" along the bay. (CC) By the 1970s, trophy hunters began to hunt out the largest moose from these herds, using access points on Alaska Peninsula National Wildlife Refuge lands just east of the Monument. At that time,

"Pen Air planes and the airports would be loaded with horns and in Anchorage, the Sheffield House lobby would be filled with horns." (CC)

Yantarni Bay and Creek were once hunted for caribou, but their numbers have declined in recent years. A number of interviewees suggested that Yantarni Bay was now crowded with well-equipped charter hunting operations and that this has resulted in noise and intensified hunting in that area that has displaced game. (AB, HB)

Traditional hunting along the coastline appears to have followed particular patterns, with families visiting preferred locations along the coast. If game could not be obtained there, hunters then moved to secondary and tertiary hunting sites along the coast, moving along a linear path down the coastline. Hank Brandal, for example, reports that he and his family hunt in the vicinity of the North Fork estuary, by his family's allotment, but will travel eastward if game is not available there. Only rarely do they take boats up the Aniakchak River to hunt in the interior, when game is absent along the coastline.

In the modern period, with disruptions to game populations and the availability of motorized transportation, this pattern of coastal hunting appears to have taken on a dramatically expanded scope. While prioritizing specific hunting sites along the coast, "you never know where you're going to hunt" along the coast. (HE) People will travel northeast from Chignik Lagoon, for example, traveling the coast, seeking game. Seldom do they have to go as far northeast as Amber Bay before making a kill. While Aniakchak is therefore not the target of the hunt, this pattern of coastal hunting results in considerable numbers of trips that ultimately take hunters into the Monument and Preserve. Likewise, a number of Perryville fishermen reportedly fish the beaches of the Monument, sometimes using Chignik as a base of operations. During or after their fishing, they pass along the shorelines of Aniakchak Bay and Kujulik Bay, and sometimes Amber Bay, to hunt caribou. According to some interviewees, hunting has intensified along these bays in recent years as the combined effects of ATVs and intensified sports hunting have pushed game populations out of coastal areas more proximate to communities along the Peninsula. Some interviewees report being forced to move into increasingly remote locations to hunt and, through this process, determining that Aniakchak's beaches are among the easiest and most accessible of these "secondary" hunting areas. (AK)

In light of the importance of boats in accessing hunting grounds in ANIA, the perturbations in the fishing industry have occasionally impacted access to the coastal hunting areas in particular:

"we used to go when we had a boat but when we lost our boat [and permit] we couldn't go anymore." (VA)

In light of the focus on beach hunting, interviewees noted growing concern regarding potential conflicts between the growing number of tourists and traditional hunting practices. Interviewees made a handful of references to caribou in Aniakchak being

chased away from certain traditional hunting areas by Aniakchak visitors, wolves, or bears.

It is worth noting here that a number of other studies have suggested the patterns of coastal hunting described by consultants for the current study. For example, Tuten (1977:3) clearly identified the Aniakchak coastline as part of the traditional hunting territory of the Chignik villages. Tuten's mapping of subsistence hunting areas shows caribou hunting along the coast of Kujulik Bay and Aniakchak Bay, while moose hunting is shown at Aniakchak and Amber Bay (Tuten 1977: 61). Hunting in these areas is depicted as relatively diffuse, compared to areas more proximate to the Chignik villages. Similarly, Alaska Department of Fish and Game records place the Aniakchak coastline squarely within the subsistence use areas of Chignik and Chignik Lagoon (Morris 1987; ADF&G 1985: 473):

"The residents of Chignik and Chignik Lagoon tend to look towards the coastline areas of the Pacific Ocean north of their villages for a good portion of their resource harvest activities...Moose are hunted in the sheltered bays, and waterfowl are hunted alone the coastline" (ADF&G 1985: 472).

Sources sometimes disagree on the degree to which Chignik Lake residents use the Aniakchak coastline. Morris (1987) suggests that residents of this village use much of the Aniakchak coastline, while Alaska Department of Fish and Game (1985), for example, suggests that they do not, but instead use the Yantarni Bay area just northeast of the Preserve, and the shoreline of Kumlik Bay just southwest of Aniakchak. This difference may reflect larger differences between the Chignik villages, coupled with the different study methods used in the two studies; Chignik Lake residents appear to rely more on hunting within the interior peninsula, and had, at the time of these studies, an average household income that was roughly one-third of that found in Chignik. In this light, it is important to note that certain research strategies may yield different outcomes in communities with this kind of variegation, reflecting variability in interviewees' receptivity to questioning, concerns or knowledge regarding National Park Service regulations relating to Native Alaskan subsistence hunting in NPS units, and the like. As Tuten (1977: 11) noted, subsistence data for the Aniakchak area appeared to have

"a fairly high margin of error" due to residents' high sensitivity "to the powerful role of the ADFG which regulates their commercial salmon industry and local bear, moose, caribou and waterfowl populations."

Published sources also suggest that the southwestern Aniakchak coastline, including Kumlik and Aniakchak Bays, is also depicted as being within the conventional hunting territory of Perryille residents. Amber Bay and the interior of Aniakchak are apparently not included in the hunting territories as documented by Morris (1987: 102).

Interior Hunting

The interior of the Preserve is used by a relatively small number of hunters, almost all being ATV users. As with coastal hunting, interior hunters appear to have both preferred hunting grounds and secondary areas that they will visit if they do not find game during their initial attempts. Jimmie Christensen, for example, suggested that if he and (apparently) others from Port Heiden do not have a successful hunt on the flanks of the caldera, they sometimes progress on to "a big swampy area" beyond Birthday Creek. This area is said to be less accessible than some hunting sites but is a reliable source of game.

Bobby Christensen indicates that a number of hunters hunt along the "base of the plateau" in the Meshik River basin, searching for caribou in marshy areas and other vegetated areas. An ATV trail passes through the marshes along the base of the plateau entering into Plenty Bear Creek, which itself drains off of the Aniakchak Caldera, and is used as a point of access for individuals hunting for moose and caribou up this drainage. Christensen also hunts the edge of the Preserve, in the upper Birthday Creek and Hot Springs Creek drainages by ATV. Henry Erickson reported that some people run down caribou with snow machines in the vicinity of Meshik Lake during the wintertime. This is possible due to the expansive flats there. He notes that this is bad for the meat, as the adrenaline and the stress on the animal makes the meat tough. (HE)

Caribou sometimes concentrate on the caldera's flanks when they migrate out of the Meshik River basin and skirt around the caldera high on its flanks. In the fall, herds of caribou come across the Meshik River and up Birthday Creek (a.k.a. Chunangapuk), across the caldera flanks (called "the plateau" by some) and head northeast. This migratory pattern allows the caribou to bypass the marshy flats of Meshik River and the community of Port Heiden. This pattern of migration may reflect a response to intensive hunting in these lowland areas, but hunters have adapted to this migratory pattern and sometimes intercept caribou along this route.

Moose hunting areas also are reported in upper Birthday Creek and other small creeks draining into the Meshik River from the southwestern edge of the Monument. Snow machines are sometimes used to access the upper reaches of these creeks. A hot springs is reportedly found along one of these streams and may be visited during these treks, but its significance is unclear. (BC)

Some suggest that the caribou in Aniakchak's uplands are larger than elsewhere, drawing hunters there from other, more conveniently located hunting grounds. The highlands around the Aniakchak Caldera are said to be hunted during the summer or early fall, as the bulls ascend to higher elevations to avoid insects and the heat of the lowlands. (EC, HM) Especially large caribou are said to be found there, and some hunters seek them there. Smaller ones, including most females, are said to not go up so high; the big bulls come back downslope in mid to late August right before the rut. (JC) The north and northwest flanks of the caldera are said to be especially good hunting sites, when accessible by ATV. In these areas, caribou and moose gather in vegetated areas lying in-between bands of exposed rock. The vegetation patterns keep game concentrated, while the intervening rocky areas provide relatively easy access by ATV. Exposed rocky areas are also said to have served as impromptu landing strips for airplane hunters, and Henry Matson recalled that he used to land airplanes on "blowouts" on the plateau around the caldera. Most commonly, the people of Port Heiden access the northern flank of the caldera along the "first cape" trail up Reindeer Creek, or along the "second cape" trail, while the western flanks of the caldera are accessed by a number of ATV trails. (JC)⁴⁴

Hunters from Kodiak

It is important to note that a number of consultants addressed the extensive use of the Aniakchak coastline by residents of Kodiak Island, who visit the area in the course of commercial fishing or other boat travel that takes them to the area. These fishermen were reported to have killed large numbers of caribou and moose along the coastline as they prepared to return home to Kodiak from fishing. As mentioned elsewhere in this document, the use of this area by residents of Kodiak Island has a considerable time depth. Indeed, the writings of Gideon describe what appears to be a tradition of Kodiak caribou hunting on the Alaska Peninsula in the early 19th century:

"[the Koniag] occasionally hunt caribou themselves, approaching the animal stealthily down wind, as they do when hunting bear or seal, because these animals have a very acute sense of smell" (Gideon 1989: 57).

The accounts of modern consultants on the issue of Kodiak residents' hunting in Aniakchak are echoed by certain existing documents. Indeed, while data on this point was insufficient, Tuten's study of subsistence hunting at Aniakchak prior to the formation of the Monument and Preserve might lead one to the conclusion that the use of the Aniakchak coastline by Kodiak residents equaled, or even exceeded, the use by Alaska Peninsula communities. She noted a diversity of users, so that "Subsistence hunters from Kodiak, Chignik and Bristol Bay all hunt along the Pacific coast of the peninsula," with boats from such villages as Kodiak, Sand Point, Seward, Seldovia all

anchor and use Aniakchak Bay (Tuten 1977: 65). In the spring and fall, as Kodiak residents bound for Chignik at the beginning or end of the summer salmon season, they often anchor in Aniakchak Bay (Tuten 1977: 65). If the crew needs meat, they have hunted the shoreline for caribou, moose, and other game.

"Because Kodiak does not support caribou or moose, Chignik residents feel that these fishermen secure most of their game from the mainland coast" (Tuten 1977: 65).

As Aniakchak Bay is one of the last mainland areas encountered along the mainland coast before crossing Shelikof Strait, it has served as an important stopover point of this kind. While some Alaska Department of Fish and Game documents have alluded to this use of the Peninsula, it is clear that the geographic regionalization of certain ADF&G studies has not fully assessed some of this off-island hunting by Kodiak residents (e.g., ADF&G 1985).

Consultants for the current study add that some fishermen from Kodiak used to come into the Aniakchak area prior to the limitations on entry and kill moose to use for crab bait. Today, a number of crabbers can be seen shooting seals, sea lions, sea otters and even moose and caribou in the area for crab bait, a source of great concern to some traditional hunters. Some also shoot caribou and moose along the shoreline while crabbing. (AB)

Charter Hunting and other Hunters from Elsewhere

Charter hunting was said to have become a factor of local life beginning shortly after World War II. (HM) Henry Matson recalled the abundance of these early hunts, when visiting hunters were given money-back guarantees of success. By the 1970s, sports hunting far was said to far exceed the apparent subsistence hunt at Aniakchak, as the area became popular for its abundant game and "a highly aesthetic environment for hunting" (Tuten 1977: 65-66). At this time, chartered hunting guides were reported to traverse the entire central peninsula searching for game. Brown bear and moose trophy hunting were popular activities at the time - sports hunting of birds was common, but largely peripheral to big game hunting. Most of the hunters during this period were from the coterminous Unites States. Tuten (1977: 66-67) indicates that nine sport hunting camps, belonging to seven individuals, were located in the proposed Monument in the 1970s. 45

Today, consultants suggest, the charter hunts have become more aggressive, as the number and location of game has motivated them to seek out herds and hunting areas far beyond their original range. Some individuals express strong negative feelings regarding commercial hunting charter operations and operators, yet it is clear that a

number of individuals in these communities have played a role in these operations in the past. Some express the view that there are too many trophy hunters in the Aniakchak area.

One charter operator, Jeff Moore, is sometimes mentioned as an example of how charter operations function in the Aniakchak area. Moore flies trophy hunters into Aniakchak, carrying roughly four to six people at one time. He shows them the best places to hunt, drops them off, and returns for them in a couple of days. A number of individuals also mentioned Butch King as one of the hunting charter operators in the area. There are charter-hunting camps in Amber Bay, Fish Bay, Surf Beach, Chigonov, Chiginagak, Yontarny and elsewhere. At Surf Bay there are Jet boats and 4-wheeler ATVs available for sports fishermen and trophy hunters who use the camps. Henry Erickson reported that when he passed by one of these camps, he counted 60 moose racks and 10 caribou racks, suggesting a significant impact on local game.

Hunting guides operating from the charter camps in the vicinity of Aniakchak are said to be required to take the meat under certain circumstances. "A lot of meat is leaving the area," resulting in poorer subsistence hunts locally, in some peoples' view, while the few economic benefits of this hunt are not accrued by the local communities: "Twenty years ago airports in this area were stacked with caribou, now it's all moose antlers." (AB) Meat that is not wanted by hunting clients is sometimes offered to people in local communities. Some people are happy to take the meat, especially those who cannot get out to hunt or fish. Some do not; Henry Erickson said that he would never eat this meat, as he does not know how long it has "been sitting around for or how well it has been looked after and handled." Despite pressures to salvage meat from these operations, interviewees suggest that charter-hunting clients typically only want the head of their game as a trophy, so they often leave the carcass behind:

"They all tell the same story to anyone who asks about [the rest of] the animal: "the bears had got to the meat when they went back for it"." (HE)

Charter hunting guides take people into the high mountains by airplane and the hunters shoot the moose in these inaccessible areas, because they are not concerned about trying to get the carcass down. Some interviewees expressed surprise that hunters even manage to get the trophy head down from some of the places they kill moose and caribou. (RE, HE)

Interviewees also discussed the impacts of other outside hunters in the Aniakchak area. Outsider fishermen and sports hunters have reportedly discovered the ease with which the beaches in the Monument can be hunted in and around the Monument. Mike Grunert reports,

"Guys that come back from Bristol Bay and last year the Russians (i.e., non-Native interlopers?)came back and forth to hunt the Peninsula. They're finding out how easy it is to get animals close to beaches here." (MG)

He noted that this placed additional pressures on local caribou populations. Cod fishermen have also reportedly come to the area to hunt the beaches in the springtime. Because the area is not heavily patrolled, it is easy for outsiders without permits to pull ashore and kill a few caribou without being detected. (MG)

A number of interviewees also spoke of the relationship of sport hunting regulations to the subsistence hunt. Sports hunters also represent a significant source of competition for subsistence hunters, in many interviewees' view. Even in the mid-1970s, Tuten (1977) found at least one hunter complaining of crowding and competing uses at Aniakchak. One Chignik village resident complained that,

"Aniakchak is busy with hunters...I like to hunt and I go whenever I need meat. I used to hunt up there a lot but no more, now the headhunters compete" (Tuten 1977: 64).

The sports hunt has brought the Aniakchak area to the attention of outside hunters, and people from Kodiak and Homer are now said to hunt the Peninsula more aggressively than before. Alaska Department of Fish and Game records also suggest that the northern fringes of Aniakchak may be within the subsistence hunting territories used by residents of Aleknagik, Clarks Point, Togiak, Manokotak, Twin Hills, and Dillingham:

"Extremely large areas are covered by hunters and trappers of this subregion because many terrestrial resources are not abundant...A few hunters, mostly from Dillingham, fly across to the Alaska Peninsula to hunt caribou and perhaps moose. A number of the Dillingham hunters fly down the peninsula to hunt waterfowl in the fall." (ADFG 1985: 378, 410-11).

As with the pattern of use by Chignik villages' residents on the southern, one might assume that the coastal portion of the Preserve is visited intermittently, and principally when more proximate hunting areas are not found to be productive.

The NPS and the Alaska Peninsula National Wildlife Refuge were said to have given local hunters an extra 10 days before the sport moose hunt starts. Some suggest that this sort of timeframe is often inadequate, especially when there are competing claims on their time from other economic pursuits. The subsistence season was also said to start much too early, because it starts when there are still many "blow flies." They get onto freshly killed meat and lay eggs, which quickly turn into maggots. (AA) Some consultants complained about State management of sport hunting regulations on the Alaska Peninsula, generally, suggesting that there is

"no protection, no one watching what all of these sport hunters, guides, fishers and local hunters are doing...since the state took over." (AB)

Without such attention, they suggest, the impacts of the sports hunt on subsistence resources is magnified.

The importance of Aniakchak as a hunting destination appears to have been affected in a variety of ways by NPS management. Some interviewees report that NPS management has discouraged hunting in the area; it is therefore perceived that there are "more animals in the park than anywhere else," while game populations are said to have been declining elsewhere. Ironically, this creates enhanced incentives to hunt in an area where there has been a perceived increase in hunting restrictions. "Sport hunters camp right on the line" along the Aniakchak boundary, some suggest, while a growing number of Native Alaskans return to Aniakchak to hunt in the absence of intervening opportunities. (MG)

THE CULTURAL POSITION OF THE HUNT AND MODERN CHALLENGES

Hunting continues to be a symbolically important facet of community life, and a cornerstone of what some Native Alaskans view as their shared identity (Hensel 1996). While many of the area's Native Alaskans participant in the subsistence hunt, their reasons for doing so extend well beyond simple caloric need. In some communities, "not so many people hunt much anymore. Now people eat beef, chicken, and pork." (JL) Yet, even for these communities, strong economic, social and cultural incentives reinforce traditions of subsistence hunting. For many families, continued subsistence hunting provides opportunities for social interaction, facilitates cultural continuity, and allows families to maintain ties with the land that are strained by modern economic and technological developments. ⁴⁶

Some interviewees make it clear that the hunt is an important social event, with extended families gathering together during extended trips to Aniakchak. The Erickson family, for example – including Bobby Erickson, his two sons, and their families – gather together to hunt moose and caribou in the Monument. They hunt only what they need for the following winter, during which they consume an average of perhaps one meal of wild meat per week. (RE, HE) Some families apparently hunt during times of personal difficulty, in part as a means of reinforcing family relationships.

Some take younger people to ANIA, in part, to impart knowledge and skills tied to the hunt. Returning to traditional hunting areas, fathers and grandfathers teach sons regarding specific places and resources of enduring familial importance. This may partially explain an apparent preference among some families for returning to their family's traditional hunting areas, such as Hank Brandal, who still hunts with his family near his grandparents' homesite at the mouth of North Fork River: "I've tried to show my kids what my dad showed me about hunting North Fork." (HB) In the early 1990s, after years of not hunting, Hank Brandal started to hunt in Aniakchak again to get his boys out on the land and simply experience the traditional hunt: "I wanted them to have a chance to hunt before all the animals are gone." (HB) Tuten appeared to encounter similar sentiments during her work in 1976, prior to the creation of the Monument and Preserve:

"Subsistence activities are considered to be enjoyable by most residents. Older people teach younger members of the community about hunting, fishing, and gathering. Families participate in many subsistence harvests and develop stronger friendships and inter-village communication....All residents of the villages indicated that their lives

had always centered around the salmon, caribou and recently moose, and that they would face hardships if subsistence activities ceased [regardless of their income]" (Tuten 1977: 62-63).

Similarly, Al Anderson noted that his family has continued hunting in Aniakchak because "it was a tradition" and wild game is viewed as healthier than beef and other domesticated meats. His family did not necessarily need to hunt during that period to get their meat because there was a store at home in Chignik Lagoon and they had enough money to purchase whatever they needed there. Despite this, the Anderson family continued to make brief hunting trips, of a day or two, to Aniakchak and these were an important part of Al Anderson's life through his youth and into the 1960s.

Commercial resource harvests certainly have important social dimensions, too, but the subsistence harvest is widely seen as having therapeutic and symbolically potent social, cultural, and economic outcomes. Subsistence hunting and fishing

"is sharing...it makes you feel better...you get the satisfaction of helping someone. You share food, problems, feelings, work." (MY)

This sharing is continued when men return from the hunt and, traditionally, distribute meat to the larger community, including people who are unable to hunt for themselves. This kind of sharing appears to be rooted in longstanding cultural traditions relating to the sharing of foodstuffs both within and between villages. Thus, early chroniclers noted that, despite traditions of intervillage warfare, there were still strong intervillage ties that were manifested by food exchanges and probably embedded in larger ceremonial and kinship ties. Thus, the Aluttit were said to

"live peaceably and in friendship with their neighbors, aid each other in case of need, and in times of scarcity willingly lend food supplies to each other" (Gideon 1989: 55).

More recently, ethnographic studies that have focused on the transformation of Aluttiq cultural traditions still note the persistence of food sharing as a culturally and dietarily significant act. Befu (1970: 34), for example, noted of the Kodiak Alutiit that when hunting seal, sea lion and bear "it is customary to distribute the meat among the villagers." Likewise, Alaska Department of Fish and Game studies have noted men from different villages on the Alaska Peninsula getting together to hunt, then distributing meat within their communities at the conclusion of the hunt (ADF&G 1985: 472). The accounts of interviewees from the current study only reinforce this general picture. Today, these acts of sharing appear to be important in maintaining

social bonds within and between families, and may be important, in some individuals' perspectives, to the perpetuation of Alutiq identity.

While the continued use of subsistence resources helps foster continued cultural traditions and social bonds, it is also accurate to suggest that these practices facilitate enduring attachments to particular places. As noted by Alaska Department of Fish and Game in this area,

"The resources themselves and the activities that are undertaken in harvesting and preserving these resources convey a sense of identification with the area. They provide a bonding among the groups that operate in the various phases of harvesting, preserving, and sharing" (ADF&G 1985: 472).

One cannot easily separate the social and geographical dimensions of the subsistence harvest. This point was made evident, even as it was largely implicit, in the accounts of families with historical ties to Aniakchak. Continued subsistence use of those places once used by their ancestors appears to have been important to certain individuals, and the social dimensions of the subsistence experience appears to have been enhanced by its provenience.

The consumption of traditional game, too, appears to be symbolically important to some families. This is true even if the quantities are so small that they do not constitute a significant portion of the overall diet: "Our son, Clifford gives us a chunk of meat now - that's all we need." (AB) For some people, this consumption appears to be emblematic of indigenous identity, or reconfirms personal and collective ties to certain places and certain animal species. In some cases, continued access to wild game is also seen as a symbolically potent indicator of self-sufficiency in the face of economic uncertainty:

"They're forgetting about old time food. They eat too much junk food. Even if they don't want to eat native food I make them eat it. I tell them you might need it – you might starve [if you forget how to get food]." (CK)

Likewise, the perceived decline in caribou numbers has had a number of adverse social and cultural impacts, which extend beyond the impacts on local diets and economies. Hunting of moose and other species has intensified. Some suggest that traditions of sharing game within the community have declined, as "since there's so few, they just use it for themselves." (JL) The decline in social gatherings associated with the hunt also appears to be seen by some as a threat to the integrity of the larger community.

Traditional Hunting Ethics

Among the information imparted from one generation to another during the subsistence hunt are a set of values relating to hunting and the treatment of game. Foremost among these traditional values was the need to avoid wasteful or excessive killing. Elders have traditionally passed this knowledge on to younger people:

"The number one thing from the elders was to only take what you need and use the whole animal. If you have to pack out you can't shoot more than you can pack...and take care of." (AK)

"if you take a lot then it's to feed the village – you never shoot what you're not going to eat." (HB)

"We killed what we used, what we needed. Not just for killing." (AB)

"you take care of animals you trap or shoot [you don't] waste anything." (AA)

Some elders continue to impart these messages to young people today. The application of these guidelines appears to be increasingly associated with traditional hunting, as defined in contradistinction to what are depicted as the wasteful hunting practices of outsiders and of Native Alaskan youths who have adopted non-traditional values.

Clearly, these ethics both manifested, and were reinforced by, practical considerations. A number of individuals mentioned that the historical difficulty of hunting and the need to pack all meat out manually required that hunters only killed what they needed and little more. A high premium was placed on using all parts of the animal, and people traditionally used the tongue, heart, liver, and all the meat, including the ribs, quarters, brisket, neck, back. Some elders also consume the stomach and head meats of caribou and moose, but this is less common among younger people. (AK) Survival of the hunters and their communities depended upon this kind of thrift.

The timing of the hunt, too, was said to be heavily influenced by traditional considerations that sometimes conflict with modern schedules or with federal and state regulations.

"People have a tradition and it's hard to break. They'll hunt what, when, and where they like according to their tradition." (AA)

The Erickson family provided a number of additional observations on traditional hunting etiquette that they continue to practice today. If an animal runs too far from them they won't shoot it because once the adrenaline is flowing and this would make the meat tough. They sit on high points and they only shoot animals when they are nearby. They do not shoot at an animal that is too far away, such as on a cliff face, as it would be very difficult to get to the carcass and carry it back to their boat. They do not shoot cows, but only the males, to ensure the survival of young calves or unborn calves. They always shoot medium size animals; they avoid the big ones as the meat is too tough and they avoid small ones as there will not amass enough meat to last the winter. (Today, some hunters clearly prefer the larger bulls; it is unclear to what degree this reflects a break with traditional norms.) They shoot only as many caribou as they need for winter meat. (HE, RE)

Outside Hunters, New Technologies, and Changing Values

Some depict the traditional hunters as "conservationists," but note that in order for these values to persist, they must be communicated effectively between generations. This transmission of traditional values has become especially difficult in recent years. Again, the growing opportunities for economic activities other than subsistence hunting have resulted in a shift in the significance of the hunt. For some, hunting has become increasingly symbolic of cultural persistence, but for others, a lack of dependence on game has fostered a lack of concern regarding traditional protocols and conservation measures tied to the hunt. These outcomes have resulted in a fragmentation of perspectives on subsistence hunting and polarization of some community members on matters relating to both subsistence and sport hunting.

Interviewees complained that some people – young Native Alaskans as well as sport hunters – reportedly violate these traditional protocols in a number of ways. In particular, these hunters are not constrained by convention or by significant technological limits, allowing them to kill in a manner that is depicted as disrespectful and wasteful. Some interviewees decry the "wanton slaughter" and note "a lack of respect" for the game by sport-hunters, sports fishermen, and some younger Native Alaskans. (AB)

Some young people and sport hunters reportedly "herd shoot," shooting their rifles indiscriminately into herds of caribou rather than targeting specific animals. (AB) Caribou, moose, and bear are reportedly found killed on the shorelines along the Alaska Peninsula, left there to rot. Some of these hunters take only parts of animals

that are killed, or leave a first kill for a larger second kill. Some apparently kill with no intention of retrieving the game:

"kids just kill for fun and don't even pick up the animals, especially since they have snow-machines and ATVs. The younger generation [is just] killing for fun while we were all taught you kill for what you need and use it all...it's disgusting. I don't even like going out there any more. I had to live off the land when I was younger." (AB)

Some interviewees complained of increasingly common practice of running down herds of caribou until they were exhausted and easily killed, by motorbike, ATV, or less commonly, airplane. "Small herds can get wiped out by a group of bikes - they corral them with machines and the animals don't have a chance." (AK) Cows, calves, and other non-target animals are said to be killed or wounded as part of these hunts.

The adverse impacts of these practices are seen to spill over to all communities in the area, even if individual communities do not participate in this kind of hunting. Some interviewees were quick to note that even localized overharvesting of caribou results in region-wide declines in caribou populations. Johnny Lind notes that Perryville lost their caribou herds first, and Stepovak Bay herds soon followed. This, he suggested, is in part due to the excessive hunting of grazing grounds and a pass between Stepovak and Port Mollar, used by migrating caribou, by people based at two charter outfits' lodges. These strategically important areas are thus heavily hunted, while people from Perryville, Ivanoff Bay, Nelson Lagoon, and Port Mollar hunt the same herds in the vicinity of their own villages. (JL) It is also said that the number of calves is proportionately lower, possibly reflecting intensified predation, the effects of herd chasing with snow machines, or other factors.

Some interviewees note particular philosophical dissonance with sports hunting, reflecting apparent cultural and economic differences between subsistence hunters and sports hunters. Some object to the fact that sports hunters - most of them affluent and from distant places - kill for recreational purposes game that are required for the sustenance of local communities. Moreover, there is strong opposition to sport hunting among a segment of the Native Alaskan population because it runs counter to the traditional values of using what is killed and using all parts of the animal:

"I can't stand the mentality of sport hunting for horns." (HB)

"I hate the idea of hunting for "fun"...Why let anyone kill a moose in rut? The meat is horrible, the moose isn't thinking, it's not sport." (MG)

This "lack of respect," shown by younger people as well as sports hunters, has contributed to the decline of game due, some suggest, to excessive or imprudent patterns of hunting relative to the demographics of game populations. However, there is some hint in the comments of interviewees suggesting that these declines may also be rooted in the larger cosmological implications of this disrespect. To wit, an animal population that is not shown proper respect may be less willing to present itself as game. (AB)

These new hunting practices also are depicted as being corrosive to Native Alaskan communities' cultural and social integrity. Disagreements between and within families over proper hunting etiquette in this context create dissonance and conflict. Much of this dissonance appears to be inter-generational. Traditional values are being lost in the process, some suggest. Some interviewees called for prohibition of non-traditional hunting methods or more active enforcement to curb these practices – not only because they are said to have devastating localized impacts on game populations, but because the loss of the game could mean the loss of a way of life.

ALL TERRAIN VEHICLES AND THE HUNT

The use of all-terrain vehicles (ATVs) is a contentious and politically polarized topic within the Native Alaskan communities in the area. Since the mid-1980s, the increasing availability of 4-wheel all terrain vehicles has revolutionized hunting in and around the Monument. Their use has allowed hunting over a larger geographical area and over a wider seasonal range, than was the case historically. Their use not only allows access to more remote areas, but facilitates easy removal of meat following a successful hunt. ATV users tend to access different portions of the Preserve, and may be exercising subtle differences in hunting preferences.⁴⁷

Initially, 3-wheel ATVs became available to a number of Native Alaskan families, apparently becoming widespread in the 1970s. Clearly, both snowmachines and three-wheel Honda ATVs were widespread and used in subsistence during Tuten's research on subsistence uses of Aniakchak in the mid-1970s, prior to creation of the Monument and Preserve (Tuten 1977). Consultants note that the 3-wheel ATVs were reportedly easier to drive in some conditions and easier to load on and off a boat than their 4-wheel counterparts. (MG) Nonetheless, the hauling capacity of the 4-wheelers makes a significant difference in their usefulness for the hunting of caribou and moose, and 4-wheel machines rapidly replaced 3-wheel ATVs as they became increasingly available and affordable. ATVs became more common in the late 1980s, during a period of atypical fishing wealth. At this time, a number of new ATV trails were established into the interior of the Preserve, including the "cape trails" from Port Heiden. (BC)

Some families drive ATVs to Aniakchak from their home communities, most notably the residents of Port Heiden, while others use a combination of boats and ATVs when hunting. The Erickson family, for example, stays on their boat on the Aniakchak River, but use ATVs to travel to hunting sites and pack moose or caribou back to the boat. (RE, HE)

A number of hunters indicate that they prefer to use ATVs at Aniakchak. Some note that the terrain in portions of Aniakchak is especially conducive to ATV use, with extensive flats, gently rolling hills, and relatively sparse vegetation. This allows ATVs to move freely through parts of the Monument, especially in such places as the shoreline of Aniakchak and Amber Bays. (AK) Simultaneously, Aniakchak is sufficiently remote that it is said to be nearly impossible to pack meat out of the area without use of an ATV. (CB) ATVs are said to be especially easy to use in the gravelly, wind-swept areas around the Aniakchak Caldera. This area and others in the interior of the Monument apparently have been hunted with greater intensity since the arrival of ATVs.

The adoption of ATVs has had a number of impacts on the scope and timing of the subsistence hunt. Many of the technologies for long-distance travel that existed prior

to the proliferation of ATVs centered on wintertime travel – dog sleds, or snowmobiles, for example. Hunting in the interior used to be delayed, by necessity, until individuals could use dogs or snow-machines on the snow. (BC) The modern use of ATVs is heavily influenced by the amount of snowfall each season, as heavy snow impedes ATV access. The advent of ATVs has extended the hunting season in the interior of the Monument and Preserve into the summer and early fall. The use of ATVs, simultaneously, has resulted in the declining demand for certain hunting cabins and camps in and around Aniakchak. ATVs, as mentioned elsewhere in this report, allow individuals to access the Monument directly from their home communities or boats rather than requiring extended wintertime stays in the bush. (BC) This has allowed people to effectively overcome some of the scheduling constraints caused by commercial fishing and other economic activities.

The local intensification of hunting was among the primary concerns of interviewees who were critical of ATV use. Al Anderson notes,

"With more modern equipment and more people there's more pressure. ATVs and planes plus increases in the number of people hunting puts pressure on the herds."

This is especially true, he notes, in light of the growing numbers of hunters from outside of the immediate area. (AA) Hunting by ATV, many suggest, is causing noticeable declines in caribou and moose herds within ANIA:

"In the winter when the ground is hard they can even run caribou down with the ATV and then shoot them – [they] shoot too many. In summer with no grass and bare ground on the berry flats they hunt with bikes too and run the caribou down...I don't think it's a good thing, I think it's time to stop this before we know it the hunting grounds will be ruined" (AK)

This localized exhaustion of game is said to be most intense within the immediate vicinity of villages. As indicated elsewhere in this document, some consultants suggest that Aniakchak is being hunted more intensively today due to the exhaustion of game by ATV hunters in hunting areas situated closer to populated places along the Alaska Peninsula:

"They cleaned caribou out of the area...now Perryville people [are] going up to Kujulik to hunt." (AK)



Figure 4: ATV Trails on the Approaches to Aniakchak National Monument and Preserve Photo by M. Morseth

Alec Brandal noted that the availability of ATVs allows younger people to casually participate in hunting, without the discipline or time investment that characterized the hunt historically. This, he suggests, has resulted in a lot of game violations and "wanton killing" of animals on the Alaska Peninsula without proper effort or respect:

"they're ruining the vegetation...people take more game with them, they take 3 or 4 cause they can load them on the ATV but then they don't take care of them and they waste them. They just use the best parts and they even leave parts in the field they used to eat. If they have to walk and work harder to hunt and pack out all the meat they only take one and then waste less." (AK)

Others suggested that the use of ATVs gave the hunter an unfair advantage over their prey:

"I walk when I hunt. I don't use a bike, there's no sport in that. We've got a brain and a gun – that's a big advantage... you see the country instead of whizzing by." (HB)

Several interviewees also expressed concern regarding impacts of ATVs upon certain types of vegetation. Archie Kalmakoff indicated that ATVs were allowing for easy access into Aniakchak by people from Perryville and elsewhere, and that this was allowing for extensive damage to vegetation and heavy impacts on game species in "the flats." This apparently refers to the flats lying along the riparian corridor of the Aniakchak and Meshik Rivers, as well as possibly around the flats at the mouths of Main Creek and the Aniakchak and North Fork Rivers. Traditional berry picking areas near Aniakchak Bay were said to have been adversely impacted by ATVs and motorbikes, but the exact location of these places remains unclear. (AK, MG) Some reference was also made to impacts on wetlands, as well as "mossy areas" which are apparently objectionable to some interviewees. Tracks, some note, will stay in marshy areas for a year after a single pass through a wet area. (RE, HE)

ATVs with special heavy-duty tread were said to be especially damaging to vegetation. Jimmie Christenesen suggests that big-treaded tires ruin the trails. The tread, he suggests, leaves trails in swamps for five years after just a single pass, which are of sufficient depth that they will preclude later use by motorbikes and other light-duty vehicles:

"I get mad about big, fancy tires that ruin the country...they tear up the grass and wet tundra...everything. Stock tires don't do that – the tread is smaller and if it gets stuck you need to get off and help the bike – you can't just power through and ruin the ground. With big treaded tires they just dig in and dig up the vegetation until the bike gets going again [finds traction] and the trail will never disappear." (JC)

He argues that custom, big-treaded tires should be banned in Aniakchak and perhaps elsewhere.

Yet, many view ATVs as benign if used correctly. A small number of interviewees suggest that ATVs cause no damage to vegetation in the area. (BC) Others suggest that ATVs can do damage to the vegetation and blaze new trails, but their impacts could be limited "with proper education." (AA) ATV users who stick to established trails and then hunt on foot from these access points were said to have comparatively minor impacts upon the landscape and upon game populations. (AK) Some indicate that "sticking to the trails" has become part of the ethical framework tied to traditional

hunting, and that elders still admonish young people to stick to these established trails when hunting. (BC) Simultaneously, Mike Grunert observes that

"when people drive over and over the same place it does the most damage. If the bikes are spread out there's not so much damage." (MG)

Those interviewees who advocate the use of ATVs for hunting describe their use as the necessary outcome of intensified competition for game, an "arms race" in essence, that is necessary if subsistence hunters are still to succeed. Al Anderson notes,

"Sport hunters have planes and they know where the animals are so without an ATV the subsistence hunters are at a real disadvantage... Some people think ATVs give an advantage but the guided sport hunts are 90% successful for caribou...[at ANIA] planes can land in many places so it's easy to hunt. The ATV gives less of an advantage than that." (AA)

Thus, the use of ATVs is sometimes depicted as a practical necessity in this context: "People do what it takes to get food like they have for hundreds of years." (BC) In this light, perhaps it is appropriate to suggest that the differences between the worldviews of certain Native Alaskan land users and certain federal land managers are often revealed in sharp contrast by discussions regarding the use of ATVs and comparable new technologies for subsistence harvesting. While land managers sometimes interpret the use of such technologies as a potentially destructive deviation from traditional subsistence methods, Native Alaskans commonly depict such developments as the next, almost inexorable logical steps in the practical task of food procurement (Morehouse and Holleman 1994).

Native Alaskan hunters report that they have been encountering growing opposition from NPS staff and others for making trails. Some have received citations for ATV impacts in Aniakchak. Some interviewees view this opposition and regulation as unfair, in light of the practical demands of subsistence hunting. These efforts are said to be causing hunters to avoid traditional hunting grounds in Aniakchak. Some suggest that ATV hunting should be banned in and around Aniakchak, but only if the competition from other technologies and outside hunters can be reduced proportionately. (AK) Others suggest that "they should allow ATV use by subsistence users only." (AA)

Apparently, ATVs are not the only gasoline-powered hunting vehicles that are so divisive among interviewees. Some consultants describe using "motorbikes" for hunting. Some hunters use motorbikes individually. Others hunt in groups, herding the caribou toward people with guns, and over 10 bikes can be used for this purpose at the same time. A few interviewees were highly critical of motorbike use, noting that these vehicles are not large enough to cart away killed game and thus result in considerable wastage. Others note that motorbike hunters appear to torment herds in a manner that is considered offense or destructive. Some interviewees also use snowmobiles and snow-machines. They are used not only to hunt big game, but have also been used to hunt wolves when snow conditions permit. Snow machines were also contentious among consultants, for some of the same reasons that ATVs are contentious. Alec Brandal complained that

"those miserable snow-machines - go for miles and then run right into the caribou herds - chase the caribou on the ice on the lakes, shooting right into the herd and wounding animals. They shoot right into the herd and then leave wounded animals." (AB)

The considerable variability in interviewees' opinions regarding the use of ATVs and other motorized hunting vehicles appears to reflect broader cultural and economic variability within these communities. Simultaneously, these correlations between attitudes toward ATV use and other cultural and economic variables remain unclear in the available project materials, suggesting that more systematic data gathering instruments may be of value in future research.

HUNTING OF OTHER SPECIES

Interviewees mentioned the hunting of a variety of animals in and around ANIA, in addition to caribou and moose, including seals, "squirrel," sea otters, wolves, wolverines, bears, and a variety of birds.

Seal and sea lion hunting historically appears to have brought a number of Native people to the Aniakchak coastline. In addition to being an important source of food and blubber, seals had a number of other uses. Seal oil, consultants noted, was commonly used with dried fish, and was historically stored in the inflated stomachs of seals. These inflated stomachs were also used as fishing floats; the entire seal skin may also have been used for this purpose, but was also used for the construction of parkas and other goods. (HM) The pre-contact use of the Aniakchak area for sealing appears to have been especially likely among groups living on the Pacific side of the Alaska Peninsula - yet, the area was hunted by groups from the Bristol Bay side as well. For example, an Alutiiq band called the Ugashentsy by Russian chroniclers, were reported to cross the Alaska Peninsula to hunt sea mammals, possibly hunting in or traversing the Aniakchak coastline (cited in Johnson 2005: 70). In the 19th century, the Aniakchak coastline was repeatedly visited for commercial seal hunting (Morseth 1998; Tuten 1977: 64). Some sources indicate that seal and sea lion hunting has persisted for subsistence purposes to some degree within most Aluttiq communities (Partnow 2001; Haynes and Mishler 1991). 49 Consultants for the current study suggest that seal was eaten traditionally, but that their numbers have declined and most people have abandoned them as a subsistence food source. (CK)⁵⁰

Sea otters were said to have once been numerous along the Aniakchak coast and were hunted in large part for their pelts. As early as the 1770s, the furs of portions of the Peninsula had already been so heavily exploited that fur-bearing animals were being sought in increasingly remote settings; by the 1810s, chroniclers suggest that the sea otter was becoming scarce throughout the region. Still, sea otter hunting remained a small but persistent component of the commercial fur trade through the 19th century. Sea otter hunters, apparently Russian and Native, hunted the coast of Aniakchak between Kujulik Point and Sutwik Island in the 19th century. Kujulik Point may have been the site of "Sitkhum," a fur trading post, during this period. Alec Brandal recalled that he used to see large rafts of sea otters floating in Kujulik Bay, with anywhere from 2 to perhaps 300 animals. In recent years, sea otter have been shot from boats, including by fishermen and crabbers who have used their flesh for bait – this "has really impacted the marine animals." (AB)

Wolves and wolverine were hunted in and around what is now Aniakchak long before living memory, and have continued to be hunted at different times historically. Ron Lind reported on rituals associated with the hunting of these two species that guided hunters historically and may still be practiced by some individuals today.⁵² Some

interviewees noted that a bounty on wolves brought about almost a complete depletion of the population in the area in the 20th century. In the absence of this bounty hunt, their numbers have rebounded in recent decades. (RE, HE, MC, NO)⁵³ These wolves were often hunted by airplane. Macarlo Christensen reports that he used to hunt wolves by airplane in "the flats," possibly referring to the riparian areas around the Meshik and/or Aniakchak Rivers.

"Squirrel" was sometimes hunted and eaten traditionally, though this is apparently is not common today. (CK) Porcupine and hare are hunted for food, while many animals are hunted or trapped principally for their furs, including lynx, fox, mink, and wolverine (ADF&G 1985). Hares tend to be hunted close to peoples' homes, and thus are seldom harvested in Aniakchak except when individuals are there for other purposes, such as hunting big game or commercially fishing (Tuten 1977: 55-56).

Bears and Bear Hunting

While caribou and moose are the principal game species addressed by interviewees, bears received frequent mention, and descriptions of bear hunting were common. Traditionally, bears were hunted in the fall, after the first snowfall, when they were easily tracked in the snow. Bears were ambushed as they traveled along bear trails. (CC) Bears were said to be hard to track in certain terrain, including many of their marshy haunts, where their tracks were quickly concealed by water or mud. (RL) Ronald Lind reported that there were a number of rituals tied to bear hunting, including special treatment of certain body parts in the bush, and the use of bear tendons to make children's arm bands. (RL) It is unclear to what extent these practices might persist today. ⁵⁴

While families' hunting cabins and campsites, used primarily for caribou, could serve as the base camps for the bear hunts as well, there were instances of specialized "bear camps." One such "bear camp" was reported at Surf Beach, near Yantarni Bay. (AB) The location of camps was not discussed in detail in the course of interviews. Some interviewees noted that bears occupied a number of the islands in the area and swam to them. Sutwik Island was said to have a large number of bears, and they have been seen swimming to and from the island from the mainland; during this long swim, bears may be intercepted by boat.

Some families ate bear, both fresh and salted, in the early 20th century. Different parts of the bears' bodies were prepared and eaten differently; bear paws, for example, were boiled and eaten as a special dish. (HM) Bear fat was often cooked and eaten with dried fish. (CK) Bear fat was also used as food for sled dogs: "We killed bear every year. We had to because, you know try to put up dog feed." (HM)

Bears were formerly used for other purposes. Clyda Kosbruk reported that her mother used to dry bear gut and use this material to sew thin raincoats. Bearskin rugs were sometimes made from the pelts. Pelts were cleaned and stretched as they dried, which usually required dry weather; pelts could be placed on walls and/or stretchers during the drying. Some of these rugs were sold in the "lower-48," and the head and claws were left intact on those pelts for that market. No one apparently specialized in commercial hunting for these pelts, however. (HM)

Bears were sometimes killed, too, because they were a nuisance at hunting and fishing camps:

"[Bears] tear your net up, they pull your gear in, just like you [would]...They get in the fish, where we dry our fish... Then they just take the special parts." (HM)

Thus, hunters hid in wait for bears that were expected to scuttle fishing sites.

"we laid for them at night near the fish rack. Lay up there and waited for them to come. Usually never come while we were there. But a few times they did and we shoot at them. If they were close enough we just kill them" (HM)

Some suggest that bear trails were sometimes used as foot trails in the early 20th century. Others indicate that the trails actually represent original foot trails for human residents that the bears have kept open by continuous use. (MG) It is possible that both scenarios have taken place within the Monument. Either way, accidental encounters with bears along these routes, as well as at encampments, appears to have been commonplace. A few individuals reported altercations with bears, including bears tracking travelers along these trails or loitering near campsites, and bears occasionally were shot under these circumstances. (CC)⁵⁵

Consumption of bear has declined in recent years, though it has not ceased altogether. Johnny Lind reports that, when he was younger, his family used to kill one or two bears each year for meat and grease, but that the use of these bears has declined in recent years. This is primarily due to dietary changes, as the bears are said to still be numerous. Indeed, their numbers are said to be quite high despite decreases in game populations, possibly reflecting reduced human predation. (JL) Nuisance bears, however, are still sometimes killed. Bears have become increasingly problematic along much of the Alaska Peninsula, becoming "garbage bears" with increasing

dependence on refuse from village and camp refuse. This is said to be especially problematic in places where fish and other bear foods have been overexploited. (AB)

Bird Hunting

A wide variety of birds were reportedly hunted in and around Aniakchak Al Anderson, for example, reported that he hunts fresh water ducks at different places along the Alaska Peninsula, including, mallards, pintails, golden-eyes, and others. He also hunts brandts, geese, and ptarmigan, and used to hunt "sea ducks" for bait. Herbert Anderson reported hunting certain eiders, oldsquaws, Canada geese, and other geese. Carl Carlson reported hunting scoters, coots, "whistlers" (a "black duck with an orange beak"), mallards, teals, pintails, and oldsquaws. 56

Hunters had only partial control over which species were hunted in a given year. This is because the availability of waterfowl reportedly varies considerably from year to year in this portion of the Alaska Peninsula. Thus, in one year, a hunter may find and kill a number of one species, only to find that the species is not available the following year, causing him to focus on other, more readily available species. (MC)

Meanwhile, reports by the Alaska Department of Fish and Game (ADF&G 1985: 455) suggest that the northern side of the Alaska Peninsula is occasionally noted to have richer populations of duck and geese, and so waterfowl hunting on the Pacific Coast is generally eclipsed by the use of that area, except for opportunistic hunting that is ancillary to other activities. Certain birds, however, are commonplace, and have sometimes been utilized, on the Pacific coast. This includes birds that nest on the relatively rugged Pacific coastline include cormorants, murres, terns, and gulls, as well as terrestrial birds such as ptarmigan. Subsistence reports tend to confirm the accounts of some consultants who suggest that ducks, geese, and ptarmigan tend to be hunted close to home, and thus are seldom harvested in Aniakchak except when individuals are there hunting big game or fishing commercially (Tuten 1977: 55-56).

Sea birds are sometimes hunted while walking on shore. Hunters walk landward, making certain that the winds and currents are in the right direction. Dusk is said to be an especially good time to hunt these birds, as some birds fly oceanward at that time. Michael Grunert indicated that the offshore rocks were sometimes hunted for birds and that a member of his fishing crew had found "spearheads" on the top of Pinnacle Rock, probably from historical bird hunting. Some sea birds appear to be hunted opportunistically during visits to Aniakchak, but little detail was available on this point.

Ptarmigan was popular in the mid-20th century. Its use has continued but may have declined somewhat. Some interviewees suggest that ptarmigan is plentiful close to their home communities and so they do not need to go to Aniakchak to hunt this bird. Current hunting of ptarmigan would likely be incidental to other activities in the Monument. Ptarmigan meat is sometimes canned. At other times is salted, and when processed this way is said to "taste like caribou." (CK)⁵⁷

Interviewees noted a number of traditional prescriptions for bird hunting along the coastline. It is said by some that it is best to hunt the birds when they first arrive in and around the Aniakchak area. The geese migrate to this area from inland areas and are "grain fed" on marshes when they arrive. After being on the coast for several days, they have consumed materials from the wrack line and their flesh begins to taste bad. (HA) Geese are best hunted in the fall. It is said to be easy to pick off the feathers of freshwater ducks, but sea ducks must be skinned. Ducks should be hunted in the fall, never in the springtime. Ducks should not be shot after January. Brandts, however, may be hunted in the springtime. (AA) The reasons for these traditional guidelines are not clear in the context of project interviews.

A number of consultants reported declines in game bird populations along the entire Alaska Peninsula. Some attributed this to overhunting, or egg predation by mink and weasels:

"No one worries about the small predators killing everything but they are doing damage and there's too big a population now." (CC)

Consultants noted that there used to be Canada geese along the shoreline that were hunted by locals, but that these had become quite rare in recent decades. (AA, AB) This, some suggest, is due to excessive sports hunting. The Bristol Bay coastline still has a modest number of these geese. Emperor geese are also found in the area, but these are reportedly off-limits today.

Families also have gathered seagull eggs (Larus spp.) along the Alaska Peninsula shoreline. Seagulls lay their eggs in mid-May and families used to collect at one time each year. Scheduling conflicts with other economic pursuits prohibited the egg hunt for some families and the practice of gull egg gathering has become uncommon. $(CC)^{58}$

TRAPPING

Trapping has been among the most enduring economic activities on the Alaska Peninsula, and remains an important source of cash income for some families despite sharp declines in trapping's importance generally. Trapping was clearly an important part of the historical uses of ANIA, and continues to be practiced in the area by a number of families today. Interviewees identified a number of individuals who had trapped for extended periods within the monument, such as Julius Anderson, Carl Carlson, the Erickson family, Clemens and Mike Grunert, and Alec and August Pederson. (JA, AA)

A number of medium fur-bearing mammals were trapped, principally for the furrier market. Carl Carlson reports that his family used to trap red and cross-breed fox, and weasel, as well as a few wolverine wolf, mink, land otter in the early- to mid-20th century. The Erickson reported trapping weasel, mink, land otter and fox during the same period. (RE, HE) Others reported trapping fox, wolverine and mink, though it is not clear that these were trapped inside the modern-day Monument boundaries.(AA) In the 1930s and 1940s, the most valuable furs could be sold for between \$30 and \$50. Wolverine was trapped more intensively during World War II, when they were used for pilot's parkas. (CC) Wolves apparently were trapped for a time, too, during the period of bounty hunting in the mid-20th century. Trapping appears to have intensified in the post-War period, as improved transportation options, coupled with a sharp increase in the demand for furs in luxury markets nation-wide, brought a short-lived trapping boom.

Families historically established trap lines from their homes along the Anaiakchak shoreline, and traplines were therefore clustered along the shoreline and the small drainages draining into the principal bays of Aniakchak. As families relocated to communities outside of the Monument, trapping practices adapted. In the wake of both residential relocation and expanding transportation technologies, many families began practices a twofold pattern of trapping, with much trapping occurring close to homes outside of ANIA, but specialized long-distance trapping expeditions occurring inside Aniakchak seasonally.⁵⁹ Following relocation to communities such as Chignik Lagoon, trapping has often been carried out by boat along accessible beaches, with men landing to set and check traps along the coastline. Especially after World War II, most trapping appears to have been carried out by men traveling in pairs, though sometimes groups went; a small number of individuals, such as Clem Grunert, traveled for weeks alone while trapping in the Aniakchak area.

During these visits, trappers sometimes use their family's former camps and cabins as bases of operation. Clemens Grunert trapped on the North Fork River, Dorner (Portage) Bay, and Kuiukta Bay; Mike Grunert recalled traveling with his father to

trap the North Fork as a little kid, and remembered it was a long trip in a little boat from their home in Chignik Lagoon to their base camp at Kujulik Bay. Likewise, Alec Brandal's father continued to trap at Kujulik Bay into the 1950s, though the family had left their home on that bay at the onset of World War II. (AB) The Brandal and Carlson families trapped Kujulik Bay and, apparently, Cape Kumilk, in the early- to mid- 20th century. North Fork River's tributaries, including Middle Creek, also represented significant trapping areas, and were apparently used by these families and others. Interviewee Ernie Carlson, too, learned to trap from his father, Rudy Carlson, who lived in the monument as a boy and young man. Following his father's example, Ernie Carlson has primarily trapped behind the village of Chignik Lagoon and on the beaches, as well as at Taps Point, where his family maintained what they called a *barabara*. Johnny Wallin was also said to have probably trapped in these areas. (TA)

Other individuals mentioned trapping the coastline, in part due to the ease of access, but did not mention the intergenerational context of the trapping. Julius Anderson trapped along most of the large bays in and around ANIA, including Kujulik Bay – including, apparently, the western Bay as well as the North Fork area – Aniakchak, and Chiginagak Bays. Ray and Henry Erickson's family trapped along Aniakchak and Kujulik Bays for wolverine, mink, land otter, and fox. Kumlik Creek, a stream running into Black Creek west of Aniakchak Lagoon was trapped during the early 20^{th} century, when families still lived at the Lagoon.

Interior areas were also trapped, but with considerably more difficulty than coastal sites. Dog sleds and, later, motorized vehicles were used to access these areas. Clemens Grunert reportedly accessed the upper Aniakchak basin by crossing the ford from North River. (JA) Aniakchak Creek, the eastern branch of Middle Creek, serves as a passage between Black Creek and Aniakchak Bay, and was used as a trapping area between North Fork and Aniakchak Bay. A number of individuals alluded to historical or contemporary trapping in the Meshik River basin. George Anderson trapped along Meshik River, and later introduced his brother Julius Anderson to trapping in this area. (JA) Henry Matson trapped there with Harry Aleck, "Nick," and maybe others. Trapping cabins established in this area facilitated the use of this relatively remote area. Alec Brandal and "Bobbin" Anderson trapped from Brandal's cabin at Wedge Mountain near Meshik Lake. Clemens Grunert also reportedly trapped at Wedge Mountain. (MG) A small number of individuals also trapped in the eastern portions of the Preserve. Martin Carlson had a trapping cabin in upper Chunangapuk (Birthday Creek), and at least two other trapping cabins were reported in that area. ⁶¹ (BC)

For some families, continued trapping within what is today the Monument provided them with opportunities to revisit the area after their relocation to other parts of the Alaska coastline. Interview notes suggest that these visits were important in maintaining community ties to the area, as they provided a venue for former residents to bring their children and grandchildren to the area for extended stays.

In recent years, the nature of trapping has changed. Families still trap, but the market for pelts has been in decline for some time. Even among Native Alaskans, the taking of pelts for the fur market has been controversial, for a variety of reasons: "I don't believe in killing little animals so that rich women can hang them on their backs. I can't stand to kill something any more." (AB) Some trapping families have shifted their emphasis, at different times, to alternative markets such as bounty trapping for Alaska Department of Fish and Game and other resource management agencies. Wolves were trapped for a time, for bounties. More recently, beaver have been trapped for bounties. Beaver are trapped in part to minimize their alleged impacts on fish-passage as a result of dam-building; beaver have also been implicated in flooding some riparian grazing areas used by caribou, creating at least short-term localized limits on foraging. (JL,VA) The capricious nature of both the fur market and the bounty system appear to have undermined community interest in trapping today. Despite this, trapping remains a source of supplemental income for some families, and a source of cultural continuity within a changing economic milieu.

FISH AND FISHING

Clearly, today "the commercial fishing industry continues to exert tremendous influence upon Chignik residents' relationship with the Aniakchak coastline" (Tuten 1977: 76). Commercial fishing continues to create scheduling conflicts with some traditional activities, for example, while also facilitating continued intermittent use of the Aniakchak area coincident with fishing seasons. Yet, fishing has always shaped the ways in which people use and conceive of the Aniakchak's waterways and shorelines. Interviewees pointed out that there was a long history of subsistence fishing and commercial fishing in what is today Aniakchak. Subsistence salmon fishing was part of the traditional use of the area and fish traps are reported to have been in the Meshik River historically. (BC) "Set nets," used from the shoreline, were used by many Native Alaskan families to catch salmon in the area in the early 20th century, but it is unclear whether this was done in the study area. (HM) Candlefish also run up some area rivers and have been scooped and eaten fresh; they are said to run for roughly two weeks in such places as "North River" (possibly Reindeer Creek) and were caught there historically. Henry Matson discussed traditional preparation of "smelt," an apparent reference to the candlefish - sometimes called the "hooligan" or "ooligan."

"when they were coming in we used to scoop them up by the tons. We had a scoop about so big around, you know, and about 6 feet long. You put that thing down there and they just plug that thing. You couldn't lift it up. You know those small creeks. You put that thing down and just chase them down there. We used to dig in the ground, make a nest. Pour them in there for wintertime. Put grass in there...[we don't dry them but] just put 'em in there, leave 'em there. You know it's late in the fall."

Grunion were scooped off the beaches in June, when they amass along the beaches to lay their eggs in the sand. 62 Interviewees also sometimes fish for Dolly Varden trout, though this does not appear to have been done in the study area.

Red, silver, and king salmon caught for subsistence purposes are traditionally smoked by some families, as were other fish and meat. Smokehouses were commonly used to smoke fish and "used to be everywhere" in the early 20th century, probably at every settlement along the coastline. (CC) They are still used today, in the consolidated communities of the Alaska Peninsula. Other families did not ordinarily smoke fish, but simply dry the salmon on racks in the sun. Occasionally fish dried in this manner was also salted. For some families, this dried fish was their "staple food." (CC) ⁶⁴

Spawning red (or sockeye) salmon was most commonly used for the production of rack dried fish, as it had less oil and would not spoil if dried in this manner:

"there's no grease in it—it's a spawned out salmon so the fat is gone it's good for drying because it doesn't go bad. "(CC).

Fish dried in this manner was said to be good for use on the trail or while packing. Carl Carlson reported that his family sometimes traveled all day, from 4 a.m. to 9 p.m. while hunting or trapping, and this dried salmon was the only food consumed during some of these outings. The dried salmon was also fed to their sled dogs. Some fox farmers also fed dried salmon of this type to their foxes in the early- to mid-20th century. (CC)

Certain new technologies have been integrated into the preservation of fish for subsistence uses. Many families have taken to canning salmon for later use. Freezers are increasingly used to preserve fish, and some types of salmon are turned into jerky by being partially dried and then placed in a freezer. Other salmon is sometimes pickled or salted for later use.

Subsistence fishing, as well as the processing of subsistence fish, has long served as a focal point of social interaction within and between communities. During subsistence fishing and fish processing, families gathered together for many days - in the course of these gatherings, they exchanged news, shared traditional knowledge, and reinforced social and ceremonial bonds with friends and family who were sometimes absent much of the remaining year. While land-based subsistence fishing no longer appears to be conducted at Aniakchak to any appreciable degree, it appears that the Aniakchak and Meshik Rivers, in particular, may have served as focal points of these social gatherings at one time.

Some interviewees demonstrated a nuanced understanding of salmonid migrations and habitat requirements. Carl Carlson, for example, noted that red salmon do not spawn in the same streams as pink or chum salmon. Silver salmon and red salmon might go into the same lake but not the same streams exiting from the lakes, he notes, and silver salmon come in August, somewhat later than the red salmon. This kind of variability in salmon migrations resulted in highly specialized traditional fishing patterns:

"In Perryville it's dogs and pinks...in Kujulik it's dogs and humpies...in Aniakchak River it's reds.... [it's] Steelhead in Kujulik [from Taps Point west]..." (CC)

Steelhead are said to be relatively rare, but are considered a special treat when caught. The North Fork River is said to have steelhead that stay there all winter. (CC) A small number of isolated or "landlocked" fish populations were identified in the area, such as a landlocked sockeye population at Nachimak Island, and are said to probably be the result of human planting. (CC)

It should be noted that this kind of detailed traditional ecological knowledge is suggested by a number of historical sources on Alutiit, generally. For example, in the 19th century, Holmberg (1985: 46) noted

"At a certain time of the year every one of these species moves from the ocean up to the rivers and streams in such numbers that they are easily speared with an iron nail or a rod with a point of bone, and this is the usual way of catching them. The inhabitants know exactly when every river is visited by a certain type of salmon, so that they seldom miscalculate the time even by a day."65

This understanding of fish and their distributions, rooted in the subsistence fishery, facilitated Native Alaskans' entry into commercial fishing through the 20th century. In some cases, families with historical ties to Aniakchak, then, have exhibited particular aptitude as commercial fishermen working along the Aniakchak shoreline. As project manager, Michele Morseth, observed of fisherman Mike Grunert during a seine operation along the Aniakchak shoreline,

"He knows the Aniakchak area well, knows in what wind the fish will swim on the western shore, he knows each reef, exactly where to start letting out his net (it takes him a day using the instruments to then go by his eye to give the order to release the ¼ mile long net), where to anchor when the wind or swell picks up, he has a good eye to spot fish."66

Mike Grunert noted that the wind acts upon the surface of the water and creates turbulence that concentrates salmon in the windward side of bays in Aniakchak. Further, salmon swim through these bays at predictable depths and locations: along the coast of Aniakchak Bay, pink salmon travel the west side of the bay right under the bluff; they travel in shallower water than red salmon, but further off-shore the pinks are mixed with reds. Salmon runs arrive in Aniakchak in irregular pulses, he notes, that can be delayed by such factors as inclement weather; with time, one can learn to predict when these pulses will arrive. (MG) It is said that it takes years to learn these details, but that contemporary fishing regulations and organizations have changed fishing patterns in a way that compromises the transfer of such knowledge. (MY)

A number of interviewees had participated in the fisheries earlier in life. Alec Brandal, for example, was a commercial fisherman for 56 years and was a boat captain for 47 of those years. Principally interviewees mentioned involvement in the region's salmon fisheries, but also mentioned fishing for halibut, cod, and other species. Some families that resided in what is today the Preserve used to participate in the fishery seasonally, while moving between residences in Aniakchak and the cannery towns. Carl Carlson remembers riding to and from the Chignik Bay area in a 65-foot fishing boat when the family prepared for fishing season. The Carlson boys were kept in the fish hold during these trips and they had small houses on Chignik Bay when fishing from there.

Today, the Aniakchak shoreline is sometimes sought out by local commercial fishermen, some suggest, not only because they know the area's currents, the effects of different wind conditions upon the fishery, protected anchorage sites in the bays, the timing and location of fish runs, and other variables essential to their success. The Aniakchak shoreline also has been a profitable fishing ground in times past and is not as crowded or as much of a "hassle" as fishing closer to Chignik Lagoon and other nearby communities. Some people say they have a strong sense of attachment to the area and simply return because they "love to fish there." (MG) During high winds, several points along the Aniakchak coastline are known to provide safe anchorage. During snow or ice storms, only large boats will anchor there, because small boats that build up ice will risk sinking, and there is no desirable place for an emergency landing on this shoreline. ⁶⁷

Aniakchak Bay, in particular, continues to be a popular commercial fishing area for salmon, especially pink and red (or sockeye) salmon. Mike Grunert reports that, every year since 1984, he has spent up to 20 or 25 days at a time in the Aniakchak Bay area, where he commercially fishes for red salmon. If he finds no fish there, he travels westward along the shoreline, or crosses over to Sutwik Island to fish. Ted Simeon also fishes on Aniakchak Bay, especially along Cape Kumlik. (MG) Tuten (1977: 49) has suggested that, in the 1970s, Aniakchak and Amber Bays were popular for commercial fishing, and that subsistence fishing was sometimes done there coincidentally with the commercial harvest; however, residents do not travel to these bays to fish for subsistence."

Fishing skills tied to the Aniakchak coastline have adapted to changing technologies. Seine netting used to be difficult along the Aniakchak coastline, some note, and seine nets were often snarled by the currents or boats drifted over the nets. People were given the sole task of tracking and preventing these mishaps. (AS) Today, with fish finders and other modern equipment, this position no longer exists; indeed, it is said to be easy to quickly "fish out" an area and temporarily deplete local fish stocks, as has apparently happened from time to time along the Aniakchak coastline.

Shallow bays were profitable fishing locations at different periods, but were difficult to navigate and the local knowledge of families with ties to Aniakchak was an asset in these challenging places. The lagoon on Aniakchak Bay, for example, has also been fished at different times, with fishermen netting both inside, and just outside, the Lagoon's entrance. (JA) Fishing the shallow lagoon is said to be difficult and requires smaller gear and smaller boats. A small number of people know how to fish the lagoon effectively, but their numbers have apparently diminished as purse seiners and other offshore fishing operations have caught fish bound for the Lagoon. (KE) A small number of families, including the Grunerts and Ericksons, are said to know how to fish "the River," apparently referring to Aniakchak River, using shallow-draft boats. (KE) Shallow-draft boats also were used to fish Kujulik Bay, "way up on the inside," probably for cod. (AS)

Importantly, as with subsistence hunting, commercial fishermen from the Chignik villages also follow the general pattern of seeking conveniently located fish and game close to their home villages first. When locally available fish are insufficient, they move eastward - toward and sometimes onto the coastline of Aniakchak:

"The men will fish the sockeye runs in [Chignik] lagoon, and as these runs diminish, the boats will venture east looking for pink, chum, and coho salmon" (ADF&G 1985: 463).

The parallels between this geographic patterning of subsistence hunting and commercial fishing point toward a broader significance of Aniakchak - as the center of what might be called a "risk-reducing" pattern of resource use among the Chignik villages in particular. While not central to either pursuit, Aniakchak is still depicted as being essential for the success of fishing or hunting during years when the harvests prove to be inadequate.

As the cannery operations grew through the 20th century, so too did the fishing boats. With time, this change in scale appears to have eclipsed some of the earlier commercial fishing traditions along the coast, especially in areas that required shallow-draft boats. A small number of families have continued to fish these areas principally for subsistence purposes. For example, while visiting Aniakchak, the Erickson family fishes for silver salmon on Aniakchak River, which is both a source of sustenance and entertainment; they run a jet skiff up the river as far as the rapids. (RE, HR) The arrival of larger fishing boats has facilitated fishing in places and at times that were not practicable historically. Particularly big boats are required to fish along the capes, but people must often wait for several hours until currents and winds allow them to set their nets in these potentially treacherous waters. (KE) Herring are sometimes fished near certain capes along the Peninsula with these large boats, in addition to salmon. (MG)

A number of species were said to have declined significantly in recent decades with the bays inside and near the Monument, including salmon and halibut. (AK)⁶⁸ Accordingly, there are continuing tensions between subsistence and commercial fisheries that have some direct bearing on Aniakchak lands and resources. Some interviewees expressed concern that subsistence fishery seasons were not providing ample time to meet the needs of the communities before the commercial season began. Alec Brandal suggested that the official fish escapement figures represented "paper numbers" and that the actual escapement numbers for the local fishery were so low that the salmon population was in a steady state of decline. Virginia Aleck expressed concern that the salmon are smaller now than historically, possibly reflecting the preferential catchment of larger fish by the commercial fisheries or other factors. This undermines subsistence fisheries, as the small fish are part of the total fish count of 500 salmon that are currently allotted. This also places additional pressures on the fish runs as a whole, as predators such as bears must consume a larger proportion of the adult salmon population for their own sustenance. (VA)

National Park Service management of Aniakchak was seldom cited as a contributing factor to the decline of Native Alaskan subsistence and commercial fisheries. Still, a small number of individuals suggested that river rafters and other tourists have had a noticeable impact upon fishing in certain areas, scaring away fish or creating increased competition for cabins and campsites. (Catch-and-release fishing was said to have detrimental impacts upon fisheries just outside of ANIA, especially in the Yantarni Bay area. (MG) There also appears to have been some increased competition with outside fishermen for prime fishing and anchorage sites along the Aniakchak coastline.) While interviewees did not attribute changes in the fishery to NPS management, it is clear that some interviewees view the economic futures of area communities as being inextricably tied to the well-being of fish runs in rivers flowing through the Monument. The community of Port Heiden, for example, has been planning to construct a processing plant for king and silver salmon, with the Meshik River being the principal and most proximate source of silver salmon.

Modern commercial fishing has become sufficiently unpredictable as a source of income that many families explore other options for employment. Marvin Yagie compares commercial fishing to gambling, noting that if a commercial fishing operator is to survive,

"You need to be willing to gamble and you need to be knowledgeable about where fish run and when, what kind of fish you'll get where and what time of year." (MY)

Today, some villages explore options for the return of fish traps and other technologies that might reduce the risks and uncertainties of fishing. (JL) Others proposed periodic moratoria on certain forms of commercial fishing to allow fishing stocks to rebound; Alec Brandal noted that the fishermen used to go on strike periodically to bargain for higher wages and the fish numbers often rebounded after these strikes.

Periodic declines in commercial fishing have caused some Native Alaskans in the area to take alternative work, such as assisting chartered hunting trips. Subsistence fishing and shellfish gathering also was said to intensify during periods when commercial activities waned. Archie Kalmakoff, for example, participated in his first project interview during 2002 while collecting black chitons along the beach of Chignik Lagoon. His boat had not been selected in a drawing for licenses, and so he reported that he had more time (and apparently, need) for these kinds of traditional subsistence activities. A number of interviewees expressed concerns that continued difficulties in the fishing industry will undermine community life, causing families to relocate out of the area, to become dependent on outside assistance, or to conform to regulations that undermine traditional social and economic patterns.

Today, a considerable portion of commercial fishing within Monument-associated communities is being coordinated through a cooperative fishing association. This organization fosters a coordinated local response to the challenging economic and regulatory contexts of the modern fishing industry. Interviewees allude to a variety of functions of this co-op, including regulating access to fishing permits, redistributing fishing proceeds among fishing families, as well as seeking to promote local sales and developing new markets for local products. The co-op is contentious among interviewees, and a number of Native Alaskans refuse to participate in the co-op, suggesting that its regulations compound some of the difficulties already encountered by area fishermen. Participation in the co-op sometimes apparently has created scheduling conflicts with subsistence fishing that have kept people from participating in that fishery, too. (MY) Individuals who have opted out of the co-op continue to operate commercial fishing ventures as "independents" – these are designated as the "competitive fishery" by the co-op and in Alaska Department of Fish and Game documents. (KE, MG)

Shellfish Gathering

Several interviewees alluded to shellfish gathering, principally for subsistence purposes. Most shellfish gathering appears to take place close to individuals' homes or encampments, so it is unclear to what extent shellfish may still be gathered in Aniakchak today. It is likely that the utilization of shellfish in Aniakchak has declined as the former resident population has moved to other communities.

A number of local families report having gathered clams, in particular, for subsistence purposes in the early to mid-20th century. Elizabeth Kamaroff noted that in Perryville

there are seven different types of clams that are apparently still utilized – these include the Pacific surf clam, Pacific Gaper, Pacific razor clam, Butter clam and Baltic macoma. Some fishermen from communities elsewhere in southern Alaska are said to sometimes dig clams in Aniakchak while fishing in the area. Some interviewees participated in, or were aware of, razor clam harvesting operations that appeared on the lagoon at Aniakchak Bay in the early 1930s. ⁶⁹ Interviewees reported that such families as the Carlsons, Pedersons, the Weidemans, and the Neilsens lived on Aniakchak Lagoon during and immediately after the short-lived commercial razor clam boom and probably gathered razor clams at that time. (AC) The beach adjacent to the Lagoon that was used most intensively for clam gathering is sometimes called "Clam Beach" locally. (MG) Similarly, in 1976, Tuten (1977: 55-56) found that some families still gathered razor clams at ANIA, despite population fluctuations in the razor clam population; she also reported fishermen digging clams at Mud Bay and also on south side of Aniakchak Bay when anchored in the area.

A number of other shellfish were mentioned by interviewees, which are still eaten. King crab, tanner crab, and shrimp used to be available in large quantities in the bays along Aniakchak and were commercially harvested by some Native Alaskans, but are now increasingly scarce.(AK) Families often gather Dungeness crabs near their homes for subsistence purposes, using crab pots, but the subsistence catch varies considerably over time due to localized fluctuations in crab availability. (EK) When extra crabs are caught, they are typically shared within the community. In addition, some interviewees had participated in commercial crab fisheries, especially for king and Dungeness crab, along the southern Alaska Peninsula. A number of interviewees report collecting "bidarkie" ("little boats") or black leather chitons (Katharina tunicate). Today, these chitons are removed from the rocks with a knife and typically boiled before consumption. Other chitons apparently are not eaten alone but are typically used to "season" other foods. Interviewees also mentioned eating sunflower starfish and sea urchins; scallops are not sought after, but are eaten if found. Elizabeth Kalmakoff reported that she does not eat mussels, sea cucumber, or oysters and this may reflect larger dietary preferences in area communities. (EK) Octopus is sometimes caught at very low tides. If a hole is found with abundant shell around it, the hole is said to be a likely octopus burrow; a stick is inserted and if movement is detected in the burrow, the octopus is pursued. Some families place bleach in these burrows, which causes the octopus to abruptly escape to the surface.

BERRY PICKING & OTHER PLANT USES

While plant use and plant gathering areas were seldom addressed in interviews, consultants did make passing references to berry gathering traditions inside and outside of Aniakchak. Some consultants referred to gathering blueberries (*Vaccinium* spp.) at the "berry patch" or "berry flats" in the Monument, but the exact location of this berry picking area was unclear. (RE, HE) Archie Kalmakoff made reference to these berry picking areas in ANIA, apparently near Aniakchak Bay, but the exact location or species was not clear.

Yet, berry gathering in Aniakchak does not appear to have been tied exclusively to blueberries and blueberry picking areas. Emil Christensen notes that people from the Port Heiden area ascended into the mountains on the edge of Aniakchak to pick salmonberries, as there were no salmonberries growing at lower elevations on that side of the Monument. Carl Carlson, who lived on Lost Bay for a significant portion of his youth recalls gathering cranberries, salmonberries and possibly blackberries, in addition to blueberries.⁷⁰

Historically, barrels were filled with salmonberries and heated bear grease was poured over the top of the berries to preserve them for later use. Blackberries were also preserved in this manner. (CC) "Aguduk," a pemmican-like mixture of grease, fish, meat, and/or berries, was easily made from this mixture later in the year. More recently, some families have used commercially available vegetable oils for the same purpose. (CK) Cranberries were said to be preserved by placing them in water. (CK) Blackberry wine was also made in barrels with yeast and sugar. This was bottled and consumed months or years later, though some people drank these wines before they were fully fermented. (CC)

A number of consultants expressed concern that ground disturbance, especially associated with ATV travel, had adversely impacted berry grounds in ANIA, but few specifics were mentioned in interviews.

Two project interviewees, Doris Lind and Clyda Krosbuk, discussed medicinal plants that may be found within the study area, but little information on these plants was available in the project notes. One family interviewed in this project had a number of "sea grass baskets" in their possession, but it is unclear whether the materials used to make these baskets were gathered in the vicinity of ANIA, recently or historically. (MC) Cow Parsnip (*Heraceleum lanatum*) appears in various photos taken during fieldwork and is known to have been used by Native Alaskans in this area for food and other purposes, but no details were available in project notes regarding its use by interviewees; other sources noted use of this plant by residents of the Chignik villages (ADF&G 1985).

Earlier studies related to the Aniakchak area also yield potentially valuable additions to the list of plants mentioned here. Tuten (1977: 57) documented the continued gathering of certain plant foods in the Chignik villages that were probably gathered opportunistic in Aniakchak when visiting for other reasons. These included "Indian rice" (probably the sarana, *Fritillaria camscahtcensis*), "wild parsley" for use in chowder, "wild rhubarb" (*Polygonum alaskanum*), which it is said looks like spinach when cooked and is made into rhubarb pie. Other sources note the gathering of "wild celery and spinach" (probably including *Heracleum lanatum*, in addition to *Angelica lucida*, *Rumex arcticus* and others) along the coastal margins. Tuten (1977: 57) also reported families picking many berries, including low bush cranberry, blackberry, salmonberry, strawberry, wine-berry picked in fall - many of these are used to make jelly, "aguduk," pies and other baked goods.

Historical sources describe a number of ceremonial and mundane uses of various plants that are likely indicators of traditional plant use at Aniakchak. A noted previously, Gideon (1989: 43-63), for example, mentions the food uses of cloudberries, salmonberries and other *Rubus* species, huckleberries, wild cranberries, blueberries and other Vaccinium species, crowberries, Viburnum berries, riceroot lily (or "sarana"), nettles, fern roots, as well as the gathering of grass in swaths surrounding villages for the construction of houses and baskets; a number of coastal meadow plants were also noted to have medicinal uses, such as "wild parsley" (Angelica spp.), "wild sorrel," "wild spinach" (Rumex spp.), and iris. Meanwhile, even brief studies of traditional plant use in other Alutiiq contexts have yielded a wealth of detail on plant knowledge that may also be found in the Aniakchak region; Russell (1991) for example, found no fewer than 68 different species being used in English Bay and Port Graham, not counting fungi and marine algae. And, while descriptions of the Alutiit tend to emphasize hunting and fishing to the exclusion of plant gathering, it is important to note that plants played a vital role in traditional fishing and hunting as well. Plant materials were used in the construction of most hunting and fishing gear, of course, but more specialized uses of plants were common; the Alutiiq whalers, for example, produced a "poison" from monkshood root, which was used on harpoons to paralyze whales (Crowell 1994; Heizer 1943). The full range of recoverable plant use traditions in the Aniakchak area would likely prove to be a fruitful area of inquiry, with potential implications for resource management, interpretation, and other NPS functions, in addition to being of heritage value for participating Native Alaskan communities.⁷¹

OTHER FORMS OF VISITATION

In addition to Aniakchak visits tied to hunting, trapping, and fishing, some interviewees spoke of visiting the Monument for a variety of other reasons. In some cases, interviewees describe trips to Aniakchak that appear to qualify simply as exploration. With a sense of personal and group attachment to the lands of ANIA, Native Alaskans with newfound access to ATVs have taken the opportunity to visit places that have been relatively inaccessible to casual travelers. In particular, some consultants report traveling to see the caldera as part of their travels in the Monument, especially when traveling to and from hunting and trapping areas elsewhere on the Peninsula. Bobby Christensen, for example, recalls taking a 3-wheeler ATV to the caldera; this trip took roughly 10 hours and was not motivated, apparently, by a desire to hunt in that area.

A number of interviewees made passing reference to wildlife watching that was unrelated to hunting or trapping in the Monument. Interviewees spoke of simply watching bears, wolves, beaver, cougar, and other large mammals during their visits to the Monument, with no apparent intention of hunting these species. Ray and Henry Erickson's families report seeing "our friend," an albino porcupine, living in "the Boulevard" between the Aniakchak River mouth and the Lagoon each year when visiting ANIA, as well as cougars and wolves. Other interviewees also report seeing cougar, in such places as the dunes east of the Lagoon on Aniakchak Bay. (MG) Some families also clearly watch game species, even when not hunting, to simply assess the location and number of animals in the area that might be hunted at a later date.

Ritual activity was not reported for the area. It is unclear whether this topic was not investigated by field staff, or if the prevalence of Russian Orthodoxy and other Christian traditions has effectively helped to diminish interviewees' recollection earlier forms of religious expression. Interruptions in the transmission of traditional cultural knowledge are suggested, as well, by the fact that many families with historical ties to Aniakchak stopped speaking the Alutiq language in the last century. The reasons for this are many but, in particular, a number of interviewees were the children of marriages between European or Euro-American immigrants and Native Alaskans, and English was often the preferred or "default" language in these contexts. (MG)⁷³

Despite these abrupt cultural changes, traditional Alutiiq ceremonial and healing practices are still a part of the living memory of some interviewees. Lind was born at his parents' home along Chignik Lagoon and delivered by Barbara Sanook ("Old Gramma") who was a midwife, healer, and who used to "do hands-on healing." Some families also appear to have maintained rituals tied to first menses, and prohibitions on women participating in hunting-related tasks during menstruation. (VA)⁷⁴ Only one

interviewee, Ronald Lind, offered a focused discussion of place-based oral traditions that appeared in the project field notes. He principally described oral traditions alluding to the origins of certain animal life. Lind also described oral traditions regarding "little people," "bigfoot" creatures, and other spirit beings that were said to live in the area and could restrict access to certain areas or grant certain powers. These spirit beings, and their places of origin, were traditionally considered sources of power for shamans and other healers of the Alutiiq world. The relationship of these oral traditions to specific places within Aniakchak remains ambiguous. Still, these references suggest a historical pattern of land use that differs from modern patterns of use but may be of relevance in the management and interpretation of places within Aniakchak.

It is important to note that the geographical dimensions of Alutiiq ceremonialism and social structure have yet to be examined systematically within the anthropological literature, generally. Places of perceived importance or power on the landscape are apparent, but largely implicit within most writing on traditional ceremonialism, and seldom appear in the accounts of Native Alaskan interviewees today. This oversight seems significant, in light of the number of small but suggestive references to place-based ritual practices among the Alutiit.⁷⁶

Most discussion of ritual relationships in the existing ethnographic and historical literatures centers on ritual activity within the village, itself. Yet, some ceremonial activity was clearly tied to landscapes beyond the village's edge. Among the place-based ritual traditions, beyond the village's edge, that have been addressed in the anthropological literature are those rituals centered on burial sites. A number of authors mention the use of caves and similar geological features for human burials as well as a rich ceremonial tradition associated with these burials. The control of the control of the ceremonial tradition associated with these burials.

Some suggest that all aspects of Alutiiq life were interwoven with ritual traditions, and that speaking of "subsistence hunting," for example, strictly as a mundane activity creates a false dichotomy. As Black (1988) suggests of Aleut/Koniag tradition, even the most seemingly mundane aspects of hunting gear may have deeply-rooted symbolic significance that is difficult to ascertain without an understanding of the dynamic cultural constructs of this society.

Accordingly, historical and ethnographic sources suggest extensive rituals traditionally used to insure appropriate human relationships with the spirits (*suas*) of prey animals to insure the success of hunting and fishing. Regrettably, little specific information was available on the implications of these rituals on the landscape (Lantis 1947: 37; 42-64). Sources report such rituals tied to most prey species, especially marine mammals:

"Everywhere in Eskimo Alaska impressive ceremonials, under one name or another, were given to honor and please the animals themselves or the supernatural beings that controlled them, so that the people would continue to have good hunting" (Lantis 1947: 51).

Considerable ritual attention was directed to the hunt of marine mammals, including whales, as well as the staging of most significance subsistence tasks (Lantis 1938a). As a part of this larger tradition, the Alutiit traditionally performed first hunt rites, in which a hunter honored the first animal killed, probably with ritual attention at the kill site followed by ritual redistribution of the meat within the community (Lantis 1947: 8). These ritual activities are echoed in modern traditions of food sharing mentioned elsewhere in this document - it is likely that there are other aspects of these traditions that have persisted, but as yet remained unreported in written sources.

Also, clearly, many natural resources were gathered for ceremonial purposes historically. Examples would include puffin beaks for rattles; wood, feathers, and other items for masks; wood and hide for drums, a diverse range of animal products for ceremonial regalia, or certain herbs for ritual cleansing and healing. In other ethnographic contexts, it is clear that the geographical provenience of these natural products is often considered important to their ritual significance; it is reasonable to assume that the same has been true among the Alutiit. Certainly, the historical literature abounds in references to Alutiig ritual uses of "root, herb, or stone" (Lisiansky 1968: 209). The natural products were of both ritual and medicinal significance; as discussed elsewhere in this document, many healing traditions persist in the Alutiiq world that rely on these products. Likewise, food procurement for ceremonial feasting clearly involved certain ritualized associations with particular species and landscapes, yet the nature of these rituals remains unclear (Jordan 1988; Lantis 1947:20-26). It is possible, but as yet unclear, whether food-gathering traditions for modern feasts and social gatherings might also echo these ancient traditions.

Certainly, it is not entirely surprising that researchers have tended to overlook ceremonial activities generally, or the ceremonial uses of the landscape specifically. There are many obstacles to gathering this kind of information, including the loss of certain forms of traditional knowledge, as well as reluctance among some interviewees to address these topics publicly. As Gideon noted in the first decade of the 19th century,

"I was not able to obtain detailed knowledge about shamanism, because many of the old shamans had died during the epidemic which raged through all of Kad'iak in 1804. Others were secretive about it. While I was visiting the [Ugak] settlement, one of the shamans pretended that he lost his power of speech..." (Gideon 1989: 60).

This kind of reluctance to discuss matters of ritual concern persists into the present day within many Native Alaskan communities. Still, it is clear that certain aspects of these ceremonial traditions persist in attenuated form today. Moreover, there are a number of other, related activities on the landscape - such as the use of particular places for historical memorialization, personal reflection, or the teaching of children that may significantly shape how modern Native Alaskans perceive and use particular landscapes. If only in the interest of protecting sites of enduring cultural and personal significance to Native Alaskan communities, there is a persisting need for inter-ethnic communication on this theme.

CONCLUSIONS

The patterns of land and resource use reflected in this document are in flux. From the time of first Russian contact on the Alaska Peninsula to the present day, residents of the Peninsula have experienced dramatic changes in their economic, social, cultural relationships that arguably continue into the present day. Demographic, technological, and social adaptability has been essential to the survival of these communities. Yet, the advent of NPS management at Aniakchak has arguably introduced a new set of administrative influences into this dynamic context. The result has been the ossification of some demographic and resource use patterns, the hastening or delaying of others. For example, residential communities in what is today the Monument were waning in the mid- to late-20th century; arguably the demographic patterns of the late-20th century were "locked in" by the Monument's creation, placing limits on potentials for return migration. Similarly, some Native Alaskan consultants express the view that hunting transport technologies have evolved, region-wide, from dog-sleds to airplanes and ATVs. The NPS, they suggest, has not been especially supportive of the introduction of new transportation technologies.

It is easy to understand, when considering the institutional mandates of the NPS in light of the trajectories of local history, the differences in opinion that might emerge regarding the management of lands and resources. While interviewees were not especially critical of the NPS, some expressed regret that a person "can't do everything you did before." (MG) Particular concern seemed to be directed not at current disagreements over NPS regulations, but over the potential future implications of these regulations in the context of growing visitor numbers. Rules established to control visitor impacts, widely considered to be desirable, inevitably have impacts on traditional Native Alaskan uses, some suggest. When the NPS was establishing ANIA,

"it sounded like a good deal but with more and more tourists they have to have rules. They should be the same for everyone but the more and more people that use it...we'll get zoned out. Now we can't use ATVs...next they'll outlaw powerboats or anchored boats... I hate to see it tamed down so much." (MG)

With a growing number of tourists, hunting, trapping, and other traditional pursuits create new dangers. Many of these traditional activities are associated with the coastline, in areas that might be frequented by visitors. If conflicts emerge between visitor uses and subsistence uses, Native Alaskan interviewees do not seem confident that their concerns would receive top priority.

This concern is situated within a broader range of concerns regarding the erosion of subsistence resources and practices throughout of the Alaska Peninsula, as well as Native Alaskans' control over lands and resources needed for subsistence. Subsistence hunting and fishing has provided the "safety net" during the area's frequent economic downturns. Yet, with reports of declining success at the subsistence hunt and fisheries, there is additional insecurity about the communities' capacity to meet its most basic subsistence needs. Indeed, uncertainty regarding the viability of subsistence hunting and fisheries raises serious questions regarding the ability of these communities to simply persist, along with their unique cultures. "We've got to follow our food around and the jobs. Once you've planted your roots it's hard to leave." (VA) The perceived lack of control over land use decisions on State and Federal lands in the area contributes to this sense of insecurity; so, too, does the sometimes capricious political decisions made by village councils regarding use and access on Native corporation lands. (VA)

For some, ATVs seem to create the perception of reduced risk, of greater control over the communities' fates. ATVs allow for higher mobility, so that localized resource overexploitation is not seen as a threat to the survival of families and communities. They allow for the traditional movement between "primary" and "secondary" hunting sites in search of game, but over a much larger geographical range than was the case historically (as is increasingly needed in light of perceived localized overexploitation.) Yet, many interviewees also recognize that this is a "double-edged sword," with ATVs often contributing to localized resource overexploitation. In some respects, this represents a classic "tragedy of the commons," in which individuals are compelled to utilize ATVs for their personal security, while recognizing that the use of these technologies may be adversely affecting the resources utilized by all of the communities in the region (Hardin 1968). Some perceive regulation of ATV use as a threat to individual security, even while others see such regulation as being essential to the security of the larger community by others. More research on this theme is clearly indicated.

Reductions in fish and game numbers, and reduced access to traditional hunting sites has led to increased economic dependence on the outside world. (KE) This, coupled with the need to relocate for educational opportunities, medical care, and other purposes has insured that dislocation is a common facet of life in these communities. Yet, for many families that leave, there is a strong sense of enduring attachment to their home community and their traditional territory; it is still viewed as their "home" and some harbor hopes that they might return again when conditions permit. (MS) Increasingly, the "park-associated" population includes residents of Anchorage, Seattle, and other distant cities. These populations still possess varying sense of attachment to the Aniakchak area and may bring novel views and expectations when addressing issues of NPS land and resource management. Again, the history of the peoples of the Alaska Peninsula continues to unfold.

The loss of traditional resource use is perceived by some interviewees as undermining many other traditional practices and values:

"TV is just taking over...kids don't learn traditional ways anymore, they don't learn respect for the land we thrive off of. They have no responsibility...they just jump on a Honda if they need to go somewhere. Our healthy ways are gone. What are they going to do if they don't have money? It's economically no good to be so unable to survive." (VA)

Alcohol, television, out-migration, and other social challenges grow in importance whenever there are downturns in commercial and subsistence opportunities. Some Native Alaskans now seek to provide opportunities to counteract these influences and return to traditional lands and resources. Virginia and Nick Aleck have started a "Spirit Camp" that is meant to reintroduce Native Alaskan youth to traditional cultural practices and values. Such traditional subsistence activities as berry picking are integral to this program. In other NPS units around the United States, such restorative or revivalist movements will bring renewed interests in (and claims upon) lands and resources managed by the NPS.

When offering recommendations for how the NPS might best facilitate enduring patterns of land and resource use, responses were varied. Such interviewees as Alec Brandal called for increased patrolling of hunting areas to minimize the wanton killing of animals in especially accessible areas. The enforcement of existing regulations on hunting seasonality was not supported, but the wasteful or excessive killing of game species emerged repeatedly as a topic of concern. Some advocated allowing more aggressive hunting of bears and wolves, which are said to depress game numbers. Some advocated expanded controls on ATV use, while others called for less regulation of ATVs, apparently reflecting the degree of personal dependence on ATVs in the hunt.

Clearly, human associations with Aniakchak continue to change with the arrival of new people, new ideas and new technologies. Yet, the people interviewed in this study, and their communities, have enduring ties to the Aniakchak area that have weathered the riveting change of the last century. The National Park Service, a relative newcomer to this region, will have the opportunity to continue developing a rapport with members of these communities with the passage of time. Through this process, the NPS might continue to document the many traditional uses outlined in cursory form within this document, and to better understand the enduring significance of the lands and resources in their stewardship. No doubt, the NPS is now a part of the unfolding history of the Alaska Peninsula. Inevitably, the future policies and actions of the NPS will influence human uses and views of the landscape in this unique place, Aniakchak National Monument and Preserve.

RECOMMENDATIONS FOR FURTHER RESEARCH

Traditional Use Studies, by their very nature, are general in scope and often identify themes that warrant further investigation. This study is no exception. In the course of this study, a number of topics received only passing attention, but appear to be of potential importance to NPS land and resource management, as well as being of possible interest to Native Alaskan communities that have historical ties to Aniakchak.⁷⁹ Some of the themes that appear to hold the most potential are listed

1) Traditional Ecological Knowledge

There are diverse opportunities for Traditional Ecological Knowledge studies associated with the Aniakchak area. In fact, this was the one kind of study that some project interviewees specifically requested. Virginia Aleck and Al Anderson both suggested that the NPS and other agencies specifically document oral traditions regarding long-term environmental cycles on the Pacific Coast of the central Alaska Peninsula that are still relevant today in understanding resource management issues of the present, such as the varying abundance of fish and game over time. In making this suggestion, Anderson noted that his mother's generation saw abundant codfish, but his generation saw almost none and young people scarcely know that these fish were harvested; they have since returned and seem to do so only when Dungeness crab numbers are low. Interviewees noted a number of other cycles in the course of project interviews. These kinds of patterns, Anderson suggests, are still encoded in oral traditions within the Native Alaskan communities of the area, and may point toward rewarding avenues of scientific investigation. These environmental changes are important, consultants noted, but historically researchers "won't use our traditional knowledge because we don't have that Ph.D. behind our name." (VA) By documenting these observed environmental cycles, Al Anderson suggests, the present generation may better prepare young people for what may happen next and perpetuate potentially useful traditional environmental knowledge. 80 Such investigations, conducted through ethnographic interviews with Native Alaskans of the area, could be designed in such a way that they would achieve multiple aims. In addition to identifying scientifically verifiable changes in biota over time, such material might help to identify or interpret archaeological resources, or to understand the significance of subsistence or other use patterns among Native Alaskan communities today.

Similarly, there may be considerable benefits in an investigation of oral traditions related to volcanism and its impacts. The pre- and post-contact history of volcanic impacts upon human communities has been an enduring topic of interest to archaeologists working in this area, and an understanding of this topic is essential in unraveling Aniakchak's human past. Despite this, there has been relatively little work done on the anthropological dimensions of volcanism, and little effort to establish whether the communities of the area might possess oral traditions associated with past volcanic events. Ethnographic studies at other park units, such as Crater Lake National Park, have suggested oral traditions regarding geologically verifiable events as early as 7,700 years before present (Deur 2004). As at these other parks, a study of this kind at Aniakchak may have resource management implications, but also would be an outstanding source of interpretive material for the parks of southern Alaska as well. So too, projects of this kind help preserve an important part of the Native Alaskan heritage and may help to foster park rapport with Native Alaskan communities by undertaking a study that is not driven by compliance mandates. As the volcanic eruptions of the Alaska Peninsula have had broad impacts in the region, such a study may have the potential to become a larger, multi-park project that would be of value, minimally, to Aniakchak National Monument and Preserve and Katmai National Park and Preserve.

2) Traditional Plant Use

The plant use traditions in the Aniakchak area would likely prove to be a fruitful area of inquiry. Consultants for the current study noted plant-gathering traditions tied to the Aniakchak area, but interviewers typically did not explore this theme in depth. The investigation of plant communities of enduring significance in Aniakchak, including both the identification of species and their geographical distribution, has potential implications for NPS resource management. For example, some consultants suggested that ATV use had adversely impacted a significant berry gathering areas; while the extent of these impacts is unclear, it is possible that modest changes in ATV use might ameliorate them. This kind of information may also facilitate archaeological site identification and interpretation, in addition to having value to other NPS functions. Despite the clear persistence of many plant use traditions in the area, relatively little has been written on the topic generally among the Native Alaskan communities of the area. As in the case of volcanism, such information would likely be of heritage value for participating Native Alaskan communities. Such a study would likely require ethnographic interviews with members of park-associated Native Alaskan communities in order to establish the historical and contemporary scope of plant gathering in the region. Field visits to past and present plant gathering areas with residents of these communities might be indicated. Also, such a research effort would benefit from coordination with NPS natural resource staff that possess specific knowledge and data pertaining to the past and present distribution of plant communities in Aniakchak.

3) Traditional Subsistence Hunting Values and Ethics

While the current study has focused considerable attention at the mechanics of hunting and other subsistence uses of the Aniakchak area, the cultural foundations and significance of these practices remain largely unexamined. One significant theme that emerges, however, is that of traditional subsistence hunting values and ethics. Clearly, in the course of this study, interviewees indicate that there are traditional values and ethics that have guided both human interaction with prey, as well as standards for interpersonal behavior related to traditional subsistence hunting and fishing. Some also suggest, if usually implicitly, that these values and ethics are being compromised due to changes within their own communities, changes in technology (such as certain uses of ATVs), and changes in the regulatory environment surrounding subsistence. A study that outlines these values and ethics may have great value in clarifying traditional expectations of subsistence activity for young Native Alaskans and for non-Natives alike. Such information, in turn, may help to explain contemporary challenges and conflicts surrounding modern subsistence hunting.

Similarly, the current study provides some evidence that individuals and families have preferences for certain traditional hunting areas, but little detail was provided regarding enduring claims or senses of attachment to particular hunting territories. Some hunting areas appear to be known, and perhaps "inherited," between male kin. These facts may be especially relevant when assessing the nature and extent of hunting territories still used by families, especially those that formerly lived in what is now Aniakchak National Monument and Preserve. In order to gain information on these themes, a study would likely require ethnographic interviews with members of parkassociated Native Alaskan communities, while augmenting this original research with materials already gathered by the NPS and the Alaska Department of Fish and Game.

4) Culturally Significant Landscapes and "Sense of Place"

While this study did document passing references to places in Aniakchak that are of symbolic or historic significance to individuals and communities of the area, this was not a focused topic of inquiry. This is the kind of information that is summarized in the brief section of this report entitled "Other Forms of Visitation." Interviewees' comments suggest certain landscape practices that persist but are rooted in their shared past, such as the visitation of places for historical memorialization, or for the teaching of children. An understanding of these kinds of culturally rooted landscape values and practices may be critical in comprehending the enduring significance to Native Alaskan communities of archaeological sites, historical places, and enduring patterns of use in Aniakchak. The geographical dimensions of Alutiiq ceremonialism and social structure, which underlie these patterns of shared landscape use and values, have yet to be examined systematically within the anthropological literature. Yet, the comments of certain interviewees suggest that there is still knowledge of this kind

within the Alutiiq community that may have a bearing upon land and resource management. In order to gain information on these themes, a study would likely require ethnographic interviews with members of park-associated Native Alaskan communities, augmented by the use of existing anthropological literatures.

5) Kodiak Islander Associations with Aniakchak

The use of the Aniakchak coastline, both historically and today, by Kodiak Islanders appears to be a significant component of overall use of this area. Ethnographic sources, as well as Russian and early American historical sources allude to Kodiak Islanders hunting caribou on the Alaska Peninsula in this area, in addition to Kodiak Islanders visiting the area for trade. More recent accounts, including Alaska Department of Fish and Game records, as well as the accounts of consultants for this study, suggest a continued tradition of hunting in this area. In particular, some contemporary Kodiak families apparently visit the Aniakchak area when returning home from commercial fishing. As the Aniakchak coastline is often the last portion of the mainland, and therefore the last area encountered with caribou, before fishermen cross Shelikof Strait to Kodiak, the Aniakchak area represents a convenient location for opportunistic hunting. In turn, these Kodiak residents use a number of other resources and may represent some of the most frequent Native Alaskan visitors to the Aniakchak coastline. Yet, references to this practice are fragmentary at best, in both the current study and in most ADF&G literature. Kodiak residents interviewed for this study largely consisted of individuals who had relocated there recently from elsewhere, principally the Chignik area; as such, the Kodiak Island communities represent a "user group" that is largely excluded from the current document. Much could be gained by a more thorough exploration of these uses of the Aniakchak area by permanent residents of Kodiak. In order to gain information on Kodiak Islander uses of Aniakchak, a study would likely require ethnographic interviews with members of Native Alaskan communities on Kodiak Island, augmented by the use of existing anthropological literatures and Alaska Department of Fish and Game documentation.

6) All Terrain Vehicles

ATV use continues to be a divisive issue within Native Alaskan communities and within the realm of NPS resource management. In this light, a more focused investigation of the attitudes, knowledge and practical realities underlying modern ATV use might help to minimize future resource management conflicts. This kind of study might give detailed attention to the geographical distribution of ATV use at Aniakchak, Native Alaskans' perspectives on the causes, effects, and significance of ATV uses in these areas, and the changes in these values and patterns over time. Such an investigation would have broad implications, not only for the study area, but for

other Alaska parks as well. In order to gain information on the causes, effects, and significance of ATV use, a study would likely require ethnographic interviews with members of park-associated Native Alaskan communities, augmented by the use of existing NPS, ADF&G, and anthropological literatures.

7) Visitor Impacts

The presence of visitors to Aniakchak, both before and after creation of the Monument and Preserve, has clearly had some effect on preexisting patterns of subsistence hunting and other uses of the area by Native Alaskan communities. Consultants for the current study alluded to perceived crowding, visitors scaring game from conventional hunting areas, and the safety hazards of hunting in an area with recreational users. Other conflicting uses, such as chartered hunting close to subsistence hunting areas, also received mention. Consultants alluded to certain ways of minimizing or mitigating these perceived impacts, but this was not an area of focused investigation. In order to gain information on the scope of any visitor impacts and appropriate avenues toward mitigation of such impacts, a study would likely require ethnographic interviews with members of park-associated Native Alaskan communities, augmented by the use of existing NPS, ADF&G, and anthropological literatures. Spatial analysis of visitor activities may also be warranted to achieve the larger goals of such a study.

SOURCES

INTERVIEWEES

All interviews were conducted by Michele Morseth and/or Una Goggin, as well as Ron Lind.

| <u>Interviewee</u> | <u>Date</u> | Location |
|-----------------------------|----------------------|----------------|
| Virginia Aleck | 8/5/02 | Chignik Lake |
| Al Anderson | 7/30/02 | Chignik Lagoon |
| Annie Anderson | 3/12/03 | Anchorage |
| Bill Anderson | 3/12/03 | Anchorage |
| Herbert Anderson | 7/26/02 | Chignik Lagoon |
| Julius Anderson | 8/6/02 | Chignik Lagoon |
| Alfred Andre | 12/11/02 | Anchorage |
| Alec Brandal | 7/30/02 | Chignik Lagoon |
| Clifford Brandal | 7/30/02 | Chignik Lagoon |
| Henry Brandal | 7/29/02 | Chignik Lagoon |
| Vivian (Erickson) Brandal | 7/30/02 | Chignik Lagoon |
| Axel Carlson | 7/22/02, 8/23/02 | Chignik Bay |
| Carl Carlson | 7/25/02 | Chignik Bay |
| Ernie Carlson | 7/02 | Chignik Bay |
| Kris Carlson | 8/11-13/02 | Port Heiden |
| Tina Carlson | 7/23/02 | Chignik Lagoon |
| Emil Christensen | 8/7/02 | Port Heiden |
| Jimmy Christensen | 8/11/02 | Port Heiden |
| Macarlo Christensen | 8/9/02 | Port Heiden |
| Robert "Bobbie" Christensen | 8/13-14/02 | Port Heiden |
| Henry Erickson | 6/8/02, 7/30/02 | Chignik Lagoon |
| Kenny Erickson | 8/16/02 | Chignik Lagoon |
| Ray Erickson | 6/8/02, 7/30/02 | Chignik Lagoon |
| Sarah Erickson | 7/30/02 | Chignik Lagoon |
| Clem Grunert | 10/1/02 | Chignik Lagoon |
| Michael Grunert | 7/29, 8/1-4, 8/17/02 | Chignik Lagoon |
| Archie Kalmakoff | 7/23/02 | Chignik Bay |
| Elizabeth Kalmakoff | 7/23/02 | Chignik Bay |
| Clydia Kosbruk | (2003) | (unknown) |
| Darlene Lind | 3/3/03 | Homer |
| Doris Lind | 3/11-12/03 | Anchorage |
| Johnny Lind | 8/20/02 | Chignik Lake |
| Peter Lind | 3/3/03 | Homer |

Ronald Lind 7/30, 12/9/02 Anchorage 8/9/02 Port Heiden Andrew Matson Henry Matson 3/13, 30, 31/03 Kenai Nefuti Orloff 8/9/02 Port Heiden Marlane Shanigan 10/1/02 Anchorage (telephone) Art Skonberg 1/25/03 Kodiak Nancy (Brun) Skonberg (unknown) Kodiak Pauline Supsook Port Heiden 3/16/02 Marvin Yagie 8/23/02 Chignik Bay

Interviewee Codes

AA - Al Anderson
AB - Alec Brandal
AC - Axel Carlson
AK - Archie Kalmakoff

AM - Andrew Matson AS - Art Skonberg

BC - Robert "Bobbie" Christensen

CB - Clifford Brandal
CC - Carl Carlson
CG - Clem Grunert

EC - Emil Christensen

EK - Elizabeth Kalmakoff

ER - Ernie Carlson HA - Herbert Anderson HB - Henry Brandal

HE - Henry Erickson JA - Julius Anderson

JC - Jimmy Christensen

KC - Kris CarlsonKE - Kenny Erickson

MC - Macarlo Christensen

MG - Mike Grunert

MS - Marlane Shanigan

MY - Marvin Yagie NO - Nefuti Orloff

PL - Peter Lind

PS - Pauline Supsook

RE - Ray Erickson RL - Ronald Lind

TC - Tina Carlson

VA - Virginia Aleck

VB - Vivian Brandal

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APPENDIX A:

INTERVIEW GUIDE FOR ANIAKCHAK TRADITION USE STUDY

This interview guide was used by Michele Morseth, Una Goggin, and Ron Lind as a general guide to open-ended interviews with project consultants. Not all questions were addressed in each interview.

Site Location/Name

What is the name of this place in English, Alutiiq, other language? What are the boundaries of it (how big is it)?

Site Characteristics

What does this place look like to you? What stands out? What do you notice when you come here?

Are there any features (vegetative, geologic, habitat, water, weather) that make it special or good for some particular purpose?

Did these distinguishing features determine use of the place (e.g., for subsistence, navigation, safety, central location).

Does this place have any special meaning to you or other people?

Is it connected to other places? Islands?

Are there any particular dangers here? (weather, ocean features, land features, volcano people, hairy men, spiritual).

Use/History of Use

Do you come to this place very often? Would you say you're an active user of it?

How long have you/your family used this area? Do other people use it too? Locals? Sport hunters/fishers, tourists, non-resident locals?

Does your whole family (wife, children) come out here as well?

Describe why you (or your parents/family) might have come/settled/camped here. How did you happen to first come here?

Was this site used by only you or your family? Was or is it used by others?

Were places like this considered to be any particular person's of family's?

Have you ever found any evidence of other people ever living here? Long ago or more recently? Do you know who they were? Are they (or do you consider them to be) related to you?

If there is evidence of people living here or using this place long ago, does it bother you to come here or to go near that specific place?

Activities

What sorts of activities did people do when they were here? [living, seasonal camp, subsistence, navigation, meeting, special event happened, fish (commercial, sport, subsistence), process fish, hunt (sport, guide, subsistence), trap, fox farm (or support it), mining, gardening, ceremonies or religious rites, travel through, others]

What characteristics make this place good or suitable for the activities?

Was this place used for anything else?

Resources

What types of resources were gotten from this place:

plants (including different parts for food, medicine, wood, etc.) animals birds/bird eggs fish shellfish

Family History

Did your father/parents/relatives use this place?

Do your children know this place well—do they know how to get here?

What did your family traditionally do here?

Do you know the history and the stories connected to this place?

Access

How would you typically get here?

How has the mode of getting here changed over the years?

When you came here where would you be coming from?

Is this place connected to any other place (temporally/seasonal round, geographically, subsistence-wise). Is it part of a group of connected places? What other places? How is this place connected to the others you mentioned?

Are there any special land or water features that would make it difficult to get here? What would one need to know about the terrain (or currents, underwater features, wind, or weather) here to successfully get here?

Stories/Events

Are there any stories/songs/jokes connected to this place? Alutiiq/family history/historical?

Can you think of anything particularly memorable about this place (good or bad)?

Do you know of any events or have you heard stories of any events that happened here?

Change

Have things changed since you started coming here? Are there human-caused changes? Naturally-caused changes? Change in climate or ocean level?

Landscape Topics/Questions

How would you describe the Aniakchak area? What does it encompass to you? Do you think about Aniakchak as a National Park?

How would you describe the caldera? Do you consider the caldera as something special on the landscape? Is it dangerous to live so close to it?

How do you think about Aniakchak caldera (mysterious, beautiful, dangerous, don't think particularly about it?, interesting, fun to go to?)

Is the caldera connected to the other volcanoes in the area?

Is there an connection between the caldera and the other volcanoes in the area? How are they connected?

Besides the caldera, is the park distinguishable from the rest of the landscape? Do you know where the boundaries are or which bays, river valleys comprise it?

Do you consider the bays/rivers/uplands of Aniakchak separate from the other bays/rivers/uplands along the coast or are the bays/rivers/uplands just several of many that may provide fish, plants, or meat for you or your family?

Is there anything special that ANIAs landscape features provide? Is there anything you can't get from other places (subsistence, history, or spirit wise?)?

Personal or Family Use of ANIA

Do you ever use/travel to Aniakchak, either the coast or inland in it? Have you or your family used it in the past?

Do you feel any special connection to it or any part of it? What part and why?

Historical Use & Connections

Do you know of old villages sites or old campsites at or near the park area?

Do you know who lived at or used the campsites or homesites?

Were they used only in winter or summer or used year 'round? Do you know where the people who used the homesites/campsites lived the rest of the year?

Do you feel like these sites are part of your ancestry? Are the people who used these areas related to you?

Would you ever visit (or avoid) these areas?

Access

How would you typically get to Aniakchak?

How has the mode of getting here changed over the years?

Are there any special land or water features that would make it difficult to get here? What would one need to know about the terrain (or currents, underwater features, wind, or weather) here to successfully get here?

Trails/Routes

Do you know of trails in the park? Water routes? Where did these trails/routes go? For what did people use them? (travel, trapping, hunting, visiting other camps?)

Once known, are the bays and inlets in Aniakchak easy to navigate? Are the water routes stable or constantly changing?

Are there particularly good landing spots for planes? Safe harbors for boats? What makes a good spot to land a plane or boat?

Stories/Events

Do you know of any stories/events connected to Aniakchak?

Are there any stories about volcanoes in general?

Are there any stories you know of about natural events? (volcanoes, tidal waves, earthquakes, weather?). Do you feel that you live in a dangerous area because of the weather, etc.?

Any stories about strange or unusual events? About hairymen or spirit bears sightings, prints found? Does Aniakchak caldera have little people connected to it like Veniaminov?

Do you know of any Alutiiq stories connected to Aniakchak or the peninsula? Do you know of any stories of conflict with other groups of people? Stories of migration?

Subsistence Use Topics/Questions

Do you (or have you in the past) travel to Aniakchak for subsistence purposes?

What do you typically hunt, fish, gather, trap there?

Who do you go with? Does your wife? children? go to?

When would you go to Aniakchak for subsistence?

Do you go to particular areas for certain resources? Where and for what?

Do you go to Aniakchak every year or is it one of many areas that you may chose to go to?

Do you have areas that you think of as your families or your area?

Are there places that might yield subsistence resources that you avoid for any reason?

How did you learn about hunting in ANIA? How did you happen to first go there?

Do you still go for the same reasons? Have your use patterns changed over the years?

Why would/did you quit going there?

Hunting

What do you hunt for and where do you typically hunt?

Who do you hunt with? Do you camp, stay on boat?

Is Aniakchak a particularly good place to hunt? Is the shoreline/terrain/river corridor conducive to hunting?

Do many other hunters from outside the area hunt there?

Does that affect your hunting?

How do you get there? How do you travel once there? How do you haul the animal to your boat?

What parts of the animal do you bring home? Are there any particular parts you leave in the field?

Are there any things you do with those parts (by animal)?

Fishing

Do you subsistence or sport fish in ANIA? What types of fish are you fishing for? What methods do you use? Where and when do you fish. Are there any particular rituals that accompany fishing? Do you process fish in Aniakchak or take it home to process? Are there any parts of fish that you leave in field or return to water?

Trapping

[try to fill in more of the trap line map started during the O&A research]

Plants

Would you travel to Aniakchak to pick berries or gather particular plants or plant parts? Do you have certain areas that you gather particular plants? What makes these areas especially good for that type of plant? Do you ever put anything on the plants to make them grow better?

Sacred/Supernatural/Secular Stories/Events and Their Places

Do you know of any stories/events connected to Aniakchak?

Are there any stories you know of about natural events? (volcanoes, tidal waves, earthquakes, weather?). Do you feel that you live in a dangerous area because of the weather, etc.? Are there any stories about volcanoes in general?

Any stories about strange or unusual events? About hairymen or spirit bears sightings, prints found? Does Aniakchak caldera have little people connected to it like Veniaminov or other volcanoes might?

Do you know of any Alutiiq stories connected to Aniakchak or the peninsula? Any places that you feel are important to Alutiiq people? Important to your history?

Do you know of any stories of conflict with other groups of people? Stories of migration?

Are there places in Aniakchak that are connected to these stories?

Are there any places in Aniakchak that are considered spiritual? That have something supernatural connected? Any places where religious services were held? Where plants are gathers because of special healing properties?

APPENDIX B:

POTENTIALLY KNOWLEDGEABLE INDIVIDUALS NOT INTERVIEWED

A number of potential interviewees are mentioned in project notes, but were apparently not interviewed during the course of field research. Follow-up interviews with some of these individuals may prove illuminating regarding many of the themes addressed in this document. On matters of hunting or ATV use: Andy Shangin (Chignik Lagoon aboard the boat "Sharon Dawn"), Harry Kosbruk (Perryville), Boris Kosbruk (Chignik Lagoon on "Lady Evelyn"), Jerry Yagie (Perryville), and Frank Grunert (Chignik Lake). Also mentioned were Doug Fortune, "Jens," Raymond Ahkiok and Eli Neketa, apparently all of Port Heiden. On matters of traditional plant uses: Oxenia O'Dimon (Chignik Lake) and Effie Shangin (her daughter, Rosalee Skonberg, runs a gift shop in Chignik). Individuals who were mentioned without clear indication of their background include Afonie Takak, Nick Aleck, Nick O'Dimon, Jr. (Anchorage), Johnny Constantine (Chignik Lake), Harry Aleck (Chignik Lake), Peter Kalmakoff (Chignik Lake), Harry Kalmakoff (Anchorage), Matrona Macauley (Palmer), Nellie (Natalia) Fairbrother, Jack Aleck (Anchorage), and Mary Boskovsky (Chignik Lake). These individuals are listed alphabetically below.

Raymond Ahkiok

Harry Aleck

Jack Aleck

Nick Aleck

Mary Boskovsky

Johnny Constantine

Nellie (Natalia) Fairbrother

Doug Fortune

Frank Grunert

Harry Kalmakoff

Peter Kalmakoff

Boris Kosbruk

Harry Kosbruk

Matrona Macauley

Eli Neketa

Nick O'Dimon, Jr.

Oxenia O'Dimon

Andy Shangin

Effie Shangin

Afonie Takak

Jerry Yagie

APPENDIX C:

COMMUNITIES ASSOCIATED WITH ANIAKCHAK NATL. MON. & PRES.: VILLAGE CORPORATIONS, REGIONAL CORPORATIONS, COUNCILS, AND Non-Profits, 2007

Chignik

Village Corporation - Far West, Incorporated, P.O. Box 124, Homer, AK 99613, Phone 907-749-2230, Fax 907-749-2679 Village Council - Chignik Bay Village Council, P.O. Box 48, Chignik Bay, AK 99564, Phone 907-749-2220, Fax 907-749-2423, E-mail: cbaytc@aol.com

Regional Native Corporation - Bristol Bay Native Corporation, 800 Cordova Street, Suite 200, Anchorage, AK 99501-6299, Phone 907-278-3602, Fax 907-276-3924, E-mail: uupa@bbnc.net, Web: http://www.bbnc.net

Regional Native Non-Profit - Bristol Bay Native Association, P.O. Box 310, Dillingham, AK 99576, Phone 907-842-5257, Fax 907-842-5932, Email: terryh@bbna.com, Web: http://www.bbna.com

Chignik Lake

Village Corporation - Chignik River Limited, P.O. Box 33, Chignik Lake, AK 99564, Phone 907-845-2212, Fax 907-845-2217 Village Council - Chignik Lake Traditional Council, P.O. Box 33, Chignik Lake, AK 99548, Phone 907-845-2212, Fax 907-845-2217, E-mail: chigniklakevilla@aol.com

Regional Native Corporation - Bristol Bay Native Corporation, 800 Cordova Street, Suite 200, Anchorage, AK 99501-6299, Phone 907-278-3602, Fax 907-276-3924, E-mail: uupa@bbnc.net, Web: http://www.bbnc.net

Regional Native Non-Profit - Bristol Bay Native Association, P.O. Box 310, Dillingham, AK 99576, Phone 907-842-5257, Fax 907-842-5932, Email: terryh@bbna.com, Web: http://www.bbna.com

Chignik Lagoon

Village Corporation - Chignik Lagoon Native Corporation, P.O. Box 24, Chignik Lagoon, AK 99565, Phone 907-840-2281, Fax 907-840-8863 Village Council - Chignik Lagoon Village Council, P.O. Box 9, Chignik Lagoon, AK 99565, Phone 907-840-2281, Fax 907-840-2217, E-mail: clvc101@aol.com

Regional Native Corporation - Bristol Bay Native Corporation, 800 Cordova Street, Suite 200, Anchorage, AK 99501-6299, Phone 907-278-3602, Fax 907-276-3924, E-mail: uupa@bbnc.net, Web: http://www.bbnc.net

Regional Native Non-Profit - Bristol Bay Native Association, P.O. Box 310, Dillingham, AK 99576, Phone 907-842-5257, Fax 907-842-5932, Email: terryh@bbna.com, Web: http://www.bbna.com

Perryville

Village Corporation - Oceanside Native Corp., P.O. Box 84, Perryville, AK 99648, Phone 907-853-2300, Fax 907-853-2301

Village Council - Native Village of Perryville, P.O. Box 101, Perryville, AK 99648, Phone 907-853-2203, Fax 907-853-2230, E-mail: nvofperry@aol.com

Regional Native Corporation - Bristol Bay Native Corporation, 800 Cordova Street, Suite 200, Anchorage, AK 99501-6299, Phone 907-278-3602, Fax 907-276-3924, E-mail: uupa@bbnc.net, Web: http://www.bbnc.net

Regional Native Non-Profit - Bristol Bay Native Association, P.O. Box 310, Dillingham, AK 99576, Phone 907-842-5257, Fax 907-842-5932, Email: terryh@bbna.com, Web: http://www.bbna.com

Port Heiden

Village Corporation - Oceanside Native Corp., P.O. Box 84, Perryville, AK 99648, Phone 907-853-2300, Fax 907-853-2301

Village Council - Native Village of Perryville, P.O. Box 101, Perryville, AK 99648, Phone 907-853-2203, Fax 907-853-2230, E-mail: nvofperry@aol.com

Regional Native Corporation - Bristol Bay Native Corporation, 800 Cordova Street, Suite 200, Anchorage, AK 99501-6299, Phone 907-278-3602, Fax 907-276-3924, E-mail: uupa@bbnc.net, Web: http://www.bbnc.net

Regional Native Non-Profit - Bristol Bay Native Association, P.O. Box 310, Dillingham, AK 99576, Phone 907-842-5257, Fax 907-842-5932, Email: terryh@bbna.com, Web: http://www.bbna.com

Source: National Park Service, Lake Clark National Park and Preserve 2007.

APPENDIX D:

PLACE NAMES IN AND NEAR ANIAKCHAK NM &P

| Map No. | Code Quad +# | Location | Name | Information | Туре |
|------------|--------------------|---|-------------------------------|---|----------|
| 0. | SU- D4-01 | T38S/R49W | Surf Beach | Beach to the NE of Yantarni Bay, "Ozewan" family said to have used this area | beach |
| 1. | SU- D5-01 | T39S/R51W | Gungas Creek | Fred Gungas' trap line, south side of Cape Ayutka | creek |
| 2. | SU- D6-01 | T38-39S/ R53W | Misery Creek | Local name for North Fork Aniakchak River | creek |
| 3. | SU- D6-02 | T39S/R53W USGS Mystery Creek? | North Fork Aniakchak River | Largest tributary of Aniakchak River between main river and SU-D6-01, poss. USGS Mystery Creek | creek |
| 4. | SU- D6-03 | T39S/R54W secs. 29, 32, 28, 27, 26 | Albert Johnson Creek | Correction to USGS. name for creek flowing east, headwaters one mile south of Meshik Lake | creek |
| 5. | SU- D6-04 | T39S/R54W sec 8 USGS Pinnacle Mtn. | Wedge Mountain | No. side of Meshik River. Prominent landmark from Pacific Ocean, Aniak. Bay | mountain |
| 6. | SU- C5-01 | T40S/R52W secs 9,10,16, 3, etc | The Boulevard | Beach running from mountains along western shore of Aniakchak Bay, route between Aniakchak Lagoon and mouth of Aniakchak River | beach |
| 7. | SU- C5-02 | T40S/R53W sec 23, 14 | Kumlik Creek | Creek running into Black Creek from south. | creek |
| 8. | SU- C5-03 | T40S/R52W sec. 33 | Mink Creek | Creek running from mountains, along beach & into Aniakchak Lagoon near outlet | creek |

| Map No. | Code Quad +# | Location | Name | Information | Туре |
|------------|--------------------|--|----------------------|---|---------------|
| 9. | SU- C5-04 | T40S/R52W sec. 34,45 | Fish Creek | Place where bears hang out eating fish. Carlson's had a barabara near the mouth. | creek |
| 10. | SU- C5-05 | T41S/R52W | Edwin's Creek | Runs from mtns into Aniakchak Bay 1 mile west of Elephant Point. Named "Because Edwin liked that creek." | creek |
| 11. | SU- C5-06 | T41S/R52W Kumlik Island | Axel's Island | Axel Carlson, Sr. farmed foxes (~1924-1934) and built a house on Kumlik Island | island |
| 12. | SU- C5-07 | T41S/R52W sec 28 | Deadman's Island | Named because a body was found floating near here. | island |
| 13. | SU- C5-08 | T41S/R53W sec. 23, 14 | Deadman's Creek | Runs into ocean on south side of Cape Kumlik, about 6 miles west of point. a body was found offshore near here | creek |
| 14. | SU- C5-09 | T40S/R52W | Aniakchak Lagoon | Lagoon behind "The Boulevard" Beach on Aniakchak Bay | lagoon |
| 15. | SU- C6-01 | T40S/R54W sec 32 North East portion of Kujulik Bay | North Fork | Area of Kujulik Bay at mouth of North Fork. Alex Brandal, Sr. and Frank Grunert and later George "Bobbin" Anderson built homes near mouth of river. | area |
| 16. | SU- C6-02 | T40S/R54W begins in sec 4, 9, etc. | Middle Creek | Long eastern branch of North Fork River, flows through swampy area. Trapping area. | creek |
| 17. | SU- C6-03 | T40S/R54W sec 15, 16 etc. | Aniakchak Creek | Eastern branch of Middle Creek, trail goes up to pass to Black Creek & Aniakchak Bay | creek |
| 18. | SU- C6-04 | T40S/R54W sec 20,21,29 btwn hills 830 & 467 | Grouse Valley | Small valley north of Brandals cabin. | creek |
| 19. | SU- C6-05 | T41S/R54W sec 8 Kuju | John Warren Point | (unknown origin) | point of land |

| Map No. | Code Quad +# | Location | Name | Information | Туре |
|------------|--------------------|--|-----------------------------------|--|------------------|
| 20. | SU- C6-06 | T41S/R55W sec. 2,3,11,12 | Skunk Valley | Flows into Kujulik Bay 2 mi west of Kuju marker. Alec Brandal had cabin at mouth. | creek |
| 21. | SU- C6-08 | T41S/R55W sec 29 | Taps Point | Point is at Julik marker, name refers to larger area including mouth of Rudy Creek where George & Madeline (Sanguinetti) Harris, Edwin & Laura (Sanguinetti) Carlson, Axel Carlson, Johnny Wallin, Rudy & Tina (Wallin) Carlson also wintered. | point of land |
| 22. | SU- C6-09 | T41S/R55W sec 30 | Graveyard Creek | Flows into Kujulik Bay ¾ mile west of Rudy Creek | creek |
| 23. | SU- C6-10 | T42S/R54W sec 29 | Sutkhum Point or Kujulik Point | Sutkhum or Kujulik Point refers to eastern most point of land off Cape Kumliun. | point of land |
| 24. | SU- C6-11 | T42S/R54W sec. 29 | Rudolf's cove | Sheltered cove where Charlie Olsen and then Rudy & Tina Carlson lived & trapped. | cove |
| 25. | SU- C6-12 | T42S/R54W | Charlie Olsen's Island | Univikshak Island off the east of Cape Kumliun. "Fat Charlie" Olsen had a fox farm; later he left it to Rudolf Carlson and his brothers. | island |
| 26. | SU- C6-13 | T42S/R54W | Lost Harbor | | cove |
| 27. | CH- C1-01 | | Sutkhum Bay, Sitkum Bay | Kujulik Bay—either the name for the western end or for the whole bay minus North Fork area | bay |
| 28. | CH- C1-02 | T42S/R56W sec 2 | Long Point | | point of land |
| 29. | CH- B1-01 | T42S/R57W USGS Anguvik Island | Copper Island | USGS Anguvik Island. A place to get seagull eggs | island |

| Map No. | Code Quad +# | Location | Name | Information | Type |
|------------|--------------------|---|------------------------|--|---------------|
| 30. | CH- A1-01 | USGS Castle Cape | Agayuwiguat | CH-A1-01 Agayuwiguat = "Like Churches" USGS Castle Cape at southern extent of Chignik Bay | cape |
| 31. | CH- B2-01 | T42- 43S/R57- 58W USGS Dry Creek, west branch | McKinsey Valley | Wide valley north east corner of Chignik Bay. Used by Stepanoff family? Begins route to Meshik River | creek |
| 32. | CH- B2-17 | T42S/R58W | Devil's Valley | NW fork of USGS Dry Creek | creek |
| 33. | CH- B2-02 | T42S/R58W | Rabbit Creek | One of creeks running into Chignik Bay SW of Thompson Valley | creek |
| 34. | CH- B2-03 | T44S/R58- 59W USGS Through Cr? | Neketa Creek | Neketa Creek on USGS Quad mislocated. Neketa Cr. in local terms & on Nautical Charts = USGS Through Creek | creek |
| 35. | CH- B2-04 | T44S/R59W Sec 12 | Monkey Rock | | point of land |
| 36. | CH- B2-05 | T44S/R59W 1 creek SW of Through Cr. | Dago Frank's Creek | Creek running into Chignik Bay | creek |
| 37. | CH- B2-06 | T44S/R59W Sec 24 | Village Creek | Creek running into Chignik Lagoon to east of Old Village | creek |
| 38. | CH- B2-07 | T44S/R59W | Chignik Lagoon Spit | Spit and site of old Village. | point of land |
| 39. | CH- B2-08 | T44S/R59W | Tunerville | Village site near Boomer's Cove | area |
| 40. | CH- B2-09 | T45S/R60W sec 1 | Dago Point | Point to east of CWF cannery | point of land |
| 41. | CH- B2-10 | T45S/R60W sec 2 | Cannery | CWF cannery | area |
| 42. | CH- B2-19 | T45S/R60W sec 2 | Perry Village | Cannery housing for Perryville villagers | area |
| 43. | CH- B2-11 | T45S/R60W sec 11 | Ole's Point | Small point N. of Pilerack Point—Gus Skonberg homesite? | point of land |

| Map No. | Code Quad +# | Location | Name | Information | Туре |
|------------|--------------------|---|-----------------------|--|---------------|
| 44. | CH- B2-12 | T45S/R60W sec 15 | Sourdough Flats | Geo.Anderson, daughters & son-in-laws (Skonberg, Erickson, Nikiferoff) lived here. Known for homebrew "sourdough" produced. Later Paul Shangin, Doris & Tim Shangin then Doris w/ 2 nd husband Bill Lind. | area |
| 45. | CH- B2-13 | T45S/R60W sec 16 | Coal Point | 1 mile up Chignik River | point of land |
| 46. | CH- B2-14 | T45S/R60W sec 21 | Speakeasy Bay | | bay |
| 47. | CH- B2-15 | Chignik Lagoon itself | Nanwarnaq | Generic name for "lagoon" in Alutiiq | lagoon |
| 48. | CH- B2-16 | T45S/R60W sec 14 | Horseshoe Bay | Small embayment on west side of Chignik Island. Picnic, swimming area. | cove |
| 49. | CH- B2-18 | T45S/R60W, USGS Chignik Island | Qikertaq | USGS Chignik Island | island |
| 50. | CH- B3-01 | T45S/R60W sec 20 | Kangianuq | Means "narrows." First narrow spot going up lower Chignik River | narrows |
| 51. | CH- B3-02 | T45S/R60W sec 29 | Snug Harbor | Small anchorage in Chignik River. Andy Stepanoff & Johnny Stepanoff lived here | cove |
| 52. | CH- B3-03 | T45S/R60W sec 30 | Devil's Nose | Rocky feature in Chignik River. | point of land |
| 53. | CH- B3-04 | T45S/R61W outlet of Chignik Lake | Igyak or CFI Point | Perhaps from Igya'ak, or "neck of lake." Original 20 th century Chignik Lake village site. Started by Fred & Dora (Artemie) Lind, Willie & Pauluki Artemie. | area |
| 54. | CH- B3-05 | T45S/R61W sec 27 | Napangangwaq | End of point west of Chignik Lake Village | point of land |
| 55. | CH- B3-06 | T45S/R61W sec 19 | Chingirqirqpuk | Point on north side Chignik Lake. Name means "point" | point of land |

| Map No. | Code Quad + # | Location | Name | Information | Туре |
|------------|---------------------|----------------------|--------------------------------------|--|---------------|
| 56. | CH- B3-07 | T45S/R62W sec 6 | Uuquciinguat or Fox Point | Point downstream from head of Chignik Lake. Billy Johnson trading post 20s-30s | point of land |
| 57. | CH- B3-08 | T45S/R62W sec 1 | Kualunaq | Means "charred" or "burned." Pete Anderson had homesite, near mouth of Chignik River. Land burned at some time. | area |
| 58. | CH- B3-09 | T45S/R62W sec 2-3 | Kosrilik | West side Chignik River mouth, possibly creek name | area |
| 59. | CH- B3-10 | T44S/R61W sec 33 | Ciniggiaguk or Short Point | Game lookout. Mike Sam and Innokenty Kalmakoff had homesites in area. | point of land |
| 60. | CH- B3-11 | T44S/R61W sec 31 | Terlunaq | Name means "lookout". small hill in flats across from Short Point | hill |
| 61. | CH- B3-12 | T44S/R62W sec 17 | Terlunaq "Asshole Hill" | Prominent hill on east side of Chignik River. "Lookout" in Alutiiq. Terlunaq "Asshole Hill" According to Mike Sam, "Asshole Point" is the hill, Eagle Bluff is the steep part above the river. | hill |
| 62. | CH- B3-13 | T44S/R62W sec 17 | Eagle Bluff | Bluff along river, upriver side of Asshole Hill. | bluff |
| 63. | CH- B3-14 | T44S/R62W sec 7-8 | Sayaktayuk or Red Salmon River | Name of area and river. home/camp site is on west bank of Chignik River, across from mouth of Red Salmon Creek which flows from the east. on USGS river is spelled Chiaktuak. | area |
| 64. | CH- B3-19 | T44S/R62W | Red Salmon River | Sayaktuyuk, USGS Chiaktuak | river |

| Map No. | Code Quad +# | Location | Name | Information | Туре |
|------------|--------------------|---|--------------------------------------|--|---------------|
| 65. | CH- B3-15 | T43S/R62W sec31-32 | Nunayuk "like high land" | Caribou lookout and trail along ridge east of Black Lake outlet. | ridge |
| 66. | CH- B3-16 | T43S/R62W, USGS Alec River | Scow River (a.k.a. "Scowumkuiga") | USGS Alec River, someone hauled a scow up "Scow River" | river |
| 67. | CH- B3-17 | T43S/R62W sec. 5-6 | Alutinguaq | Means "Valleys." Area of small hills and valleys, good for caribou hunting | area |
| 68. | CH- B3-18 | T43S/R62W sec 12 | FRI Point | Black Lake Fisheries Research Institute camp | point of land |
| 69. | CH- B4-01 | USGS Black Lake | Second Lake | USGS Black Lake | lake |
| 70. | CH- B4-02 | T43S/R62W sec 21 | Qipngayak | Means "Crooked Creek." Navigable by a small, shallow draft boat. | creek |
| 71. | CH- B4-03 | T43S/R62W sec 21-22 | Cikulnguq ("Ciqulngaq"?) | Means "Cottonwood Creek," Named for cottonwood grove up the creek (ciquq is cottonwood). used to be navigatable | creek |
| 72. | CH- B4-04 | T43S/R62W sec 5, USGS Crater Creek | Lluryaraq (a.k.a. Canoe River) | Means "sliding" or "slippery." USGS = Crater Creek. Portage creek to take boats to Bristol Bay via Unangashak Lakes and Unangashak River | creek |
| 73. | CH- B4-05 | T42S/R63W sec 34 | First Ridge | Ridge WNW of Black Lake on dogsled route to Ilnik | hill |
| 74. | CH- B4-06 | T43S/R63W near Rifle Butte? | Crosswinds | Natural airstrip WSW of Black Lake, Alfred Andre hunting camp | area |
| 75. | CH- B4-07 | unknown location, may be on Quad to west | Muvgunquaq | Means "breasts." Two breast-shaped hills to west of Black Lake | hill |
| 76. | BB- A2-01 | T37S/R59W sec 4, USGS Reindeer Creek | North River | USGS Reindeer Creek. Silver Salmon river. | river |

| Map No. | Code Quad +# | Location | Name | Information | Туре |
|------------|--------------------|---|-------------------------------------|--|------------------|
| 77. | BB- A2-02 | T36S/R59W sec 31 | 1st Cape | First ridge north of Port Heiden to access the tundra and caribou hunting areas. | bluff |
| 78. | BB- A2-03 | T36S/R59W sec 31 | Dog Salmon Creek | Nicholet's trapped area | creek |
| 79. | BB- A2-04 | T36S/R59W sec 16 | 2 nd Cape | End of ridge coming off Aniakchak crater. Trail provides access to tundra, caribou from Port Heiden. | bluff |
| 80. | BB- A2-05 | T36S/R58W sec 3 | Ship Creek | At one time an old barge was wrecked here. | creek |
| 81. | CH- D2-01 | T37S/R59W sec 25, USGS Hendrickson Lake | Big Lake | USGS Hendrickson Lake | lake |
| 82. | CH- D2-02 | T37S/R59W sec 35 | Swan Lake | Small lake near Port Heiden village | lake |
| 83. | CH- D2-03 | T37S/R58W sec 31 | Natural | Picnic area along the west branch of Squealie's Creek (USGS Barabara Cr.) near Port Heiden | area |
| 84. | CH- D2-04 | USGS Barabara Creek | Squealie's Creek Squeelish Creek | USGS Barabara Creek. sounds like Squeelish but H. Matson said it's Squealie's or Skweely's | creek |
| 85. | CH- D2-05 | T39S/R57W sec 6? | Tunangapuk (Chunangapuk?) | USGS Birthday Creek but also name for homesite. Henry Matson was born at the homesite up this creek. | creek |
| 86. | CH- D2-06 | T39S/R59W | Kaswalik | Means "lots of fish." Easternmost channel of Meshik River? | river channel |
| 87. | CH- D2-07 | T39S/R59W | Mud Channel | Far left channel of main Meshik River | river channel |
| 88. | CH- D2-08 | T39S/R59W | Middle Channel | Middle channel of Meshik River | river channel |
| 89. | CH- D2-09 | T39S/R59W | Jake's Channel | Jake Gregory used to salt fish inside the river mouth on the far right going up. | river channel |

| Map No. | Code Quad +# | Location | Name | Information | Туре |
|------------|--------------------|----------------------------------|----------------------------|---|------------------|
| 90. | CH- D2-10 | T39S/R59W | Hotsprings | Apparently there are two creeks called Hotsprings, one on each side of the Meshik River. | area |
| 91. | CH- D2-11 | T38S/R59W sec. 15 | Whitefish Lake | Small lakes off of Barabara or Squeely's Creek. | lake |
| 92. | CH- D2-12 | T39S/R58W | The Plateau | Plateau between Squealie's (Barabara) Creek and Chunangapuk (Birthday) Creek. | ridge |
| 93. | CH- D3-01 | T37S/R59W sec 33 | Chaser Creek | USGS Abbot Creek | creek |
| 94. | CH- D3-02 | T38S/R59W sec 9 | Mud Creek | Small creek running into Meshik lagoon. one of 2 mud creeks on quad | creek |
| 95. | CH- D3-03 | T39S/R59W sec 20, 28, etc. | Isurirak or "Shugialik" | Isurirak is Alutiiq for "lots of seal." Shugialik is the common pronunciation. name for area of river mouth and possibly for USGS Highland Creek as well. | river channel |
| 96. | CH- D3-04 | T39S/R59W sec 19 | Mukluk Creek | USGS Yellow Bluff Creek | river |
| 97. | CH- D3-05 | T39S/R61W sec 13 | Tupugalaq | USGS Charles Creek | creek |
| 98. | CH- D3-06 | T39S/R61W sec 11 | Mud Creek | Small creek on west side of Meshik Bay. | creek |
| 99. | CH- D3-07 | T39S/R61W sec 28 | Taangunguaq | Means "lots of water" or deep water. Matson family homesite. | area |
| 100. | CH- C2-01 | T40S/R57W sec 28?? | Amigaduk | Unknown location cabin site of Olaf Matson and Martin Carlson—upper Meshik River or down from Meshik Lake | area |
| 101. | CH- C2-02 | T40S/R58W | King Salmon Creek | USGS = Landlocked Creek? | creek |

| Map No. | Code Quad +# | Location | Name | Information | Type |
|------------|--------------------|---------------------------------------|----------------------------|---|--------|
| 102. | CH- C2-03 | T41S/R58W sec 21?? | Sunny Valley | Unknown location, probably upper Landlocked Creek, on way from Chignik Bay (via Dry Creek) to Meshik River | valley |
| 103. | CH- C2-04 | T41S/R59W? | Hot Springs Creek | USGS = Braided Creek? | creek |
| 104. | CH- C2-05 | T40S/R59W sec 14 | Smelt Lake | Lake for smelt fishing under the ice. | lake |
| 105. | CH- C4-02 | T42S/R63W sec 13 | Unangashak Lakes | On route between Chignik and Ilnik— outlet into Unangashak River | lake |
| 106. | CH- C5-01 | T42S/R66W sec 15 | Upper Ilnik Lakes | Small lakes up the Ilnik River? | lake |
| 107. | CH- C5-02 | T41S/R65W sec 14 | Mast River or "Numahtuluk" | River that flows into Bering Sea by Seal Islands | river |
| 108. | CH- C5-03 | USGS Fog Creek | Wek(?) | USGS Fog Creek. "Tall Grass" or "Grassy River". | creek |
| 109. | CH- C6-01 | T42S/R66W, USGS Wildman Lake | Alognuk(?) | "Like a bailer" because it's shaped like a bailer or a dipper. USGS = Wildman Lake | lake |

APPENDIX E:

RESOURCES USED IN THE VICINITY OF ANIAKCHAK NM &P BY CHIGNIKS AND PERRYVILLE RESIDENTS

COMPILED BY M. MORSETH ON THE BASIS OF INTERVIEW DATA AND ADF&G DOCUMENTATION FOR THESE COMMUNITIES

| Resource | Alutiiq Name |
|----------------------------|-------------------|
| | |
| (Angelica) | |
| Alder | caarin, (P)caa'in |
| Arctic Hare | |
| Aspen | uqgwigpak |
| Beaver | paluqtaq |
| BERRIES | |
| Birch | elnguq |
| BIRDS | |
| Black Brant "beach" | nacaulek |
| Black Scoter (whistler) | |
| Blackberry | atsaq |
| Blueberry | curaq, (P) cua'aq |
| Bluenose Clam | kawilnguq |
| Bracket fungus (snuff) | qamngialnguq |
| Brown Bear | taquka |
| Bufflehead | |
| Bunchberries | lernaq |
| Butter Clams | mamaayaq |
| Buttonfish? | ayuggaq |
| Canada Goose | lagiq, (P)neqlleq |
| Candlefish | qusuuk |
| Candlefish | qusuuk |
| Caribou | tuntuk |
| Caribou Calf | nuraq (P)nua'aq |
| Chamomile, pineapple plant | alam'aaskaaq |
| Chiton (Bidarkies) | |
| Chum/Dog Salmon | alima |
| Cockles | qamaquq |
| Cod (Grey? Pacific?) | |

| Resource | Alutiiq Name |
|-----------------------------|--|
| | |
| Common Snipe | |
| Cottonwood | ciquq |
| Cranberry | kenegtaq |
| Cross Fox | (P)usu'uq |
| Dolly Varden | iqallugpik |
| Duck Eggs | |
| Dungeness Crab | |
| EGGS | manik |
| Eiders | |
| Elderberry | tuuciik |
| Emperor Goose | |
| Western seagull | |
| Fiddlehead Fern | qarataqutaq |
| Fish Eggs | sisuq |
| FURBEARERS | |
| Gadwall | |
| Goldeneye | |
| Ground Squirrel | qanganaq |
| Gull Eggs | |
| Halibut | sagiq |
| Harbor Seal | isuri(q), (P) isu'i(q), baby: qaigya'aq |
| Harlequin | lluuyulinguaq |
| Herring | (P) iqalluarpik |
| Highbush Cranberry | amarsaq |
| Horse Clam | |
| Huckleberry | curarpak, (P)cua'arpak |
| Humpy (large hump) | amaqatalek |
| Indian Rice, Kamchatka Lily | laagaq, (P)laa'aq |
| King Crab | |
| King Salmon | taryaqgwak |
| Lake Trout | |
| LAND MAMMALS | |
| Land Otter | aaquya |
| Lynx | kuskarpak |
| Mallard | nillqitaaq |
| MARINE INVERTEBRATE | |
| MARINE MAMMALS | |
| Marmot | qusriq |
| Mink | |

| Resource | Alutiiq Name |
|----------------------------|---------------------------|
| | |
| Moose | tunturpak, (P)tuntuwak |
| Muskrat | kufgalunguaq, kuggw'aluk |
| Mussels | qapilaaq, (P)qapillaaq |
| Octopus | amikuq |
| Oldsquaw | |
| Other Eggs | |
| OTHER FISH | iqalluk |
| Other Plants | |
| Other Shorebirds | |
| Petrushki (Ligusticum) | aatunaq |
| Pike | |
| Pink Salmon | luuqaanak |
| Pintail | eteqsurtuliq (P) |
| Porcupine | nuuniq |
| Ptarmigan | qatgeyuk |
| Puchki (Heracleum) | ugyuun, ugsuun(P) |
| Rainbow Trout | iqallugpiaraq |
| Razor Clams | cingtaataq |
| Red Fox | kangilngaq, (P)uuquciik |
| Redneck Clam | (P) kawilnguq |
| Roe-on-kelp | |
| Salmonberry | alagnaq |
| Sandhill Crane | |
| Sawbill Ducks? | (P) paiq |
| Sculpin | kalagaq, kala'aq, kayulek |
| Sea Lion | uginaq, (P) wiinaq |
| Sea Otter | |
| Sea Urchin | uutuk |
| Shrimp | qumitgarpak |
| Silver Salmon | |
| Smelt | iqalluaq |
| Snow Goose | |
| Snowshoe Hare | uskaanaq |
| Sockeye Salmon | sayak |
| Spawning Sockeye (redfish) | |
| Starry Founder | aalalaq |
| Sweet Swamp Tuber | iitaq |
| Tanner Crab | |
| Teal | |

| Resource | Alutiiq Name |
|--------------------|---|
| | |
| Trees, wood | kenerkaq |
| Tufted Puffin | tumngaq, small puffin qagi'a |
| Tundra Swan | saqulegpak |
| Walrus | asweq |
| WATERFOWL | |
| Watermelon Berries | kakeglluguat |
| Weasel | amitatuk |
| White-Front Goose | |
| Widgeon "Bluebill" | (P)anguletgwelek |
| Wild Rhubarb | |
| Willow | carikcunguaq, (P) uqriilanguaq, uq'iilanguaq |
| Wine Berry | puyurnik |
| Wolf | kaganaq |
| Wolverine | aras'amakaq, macarualek |
| Yarrow | qangananguaq |

APPENDIX F:

MAPS

NOTES

¹ The Traditional Use Study is one of the first studies programmed when park resources are known or thought to be traditionally associated with a contemporary ethnic group or groups. The study built upon the Aniakchak Ethnographic Overview and Assessment first published in 1998 and revised and reprinted in 2003 (Morseth 1998, 2003) and reviewed and evaluated existing ethnographic data so as to identify information gaps relative to NPS management needs. The NPS places primary emphasis on fieldwork and the collection of contemporary ethnographic data in traditional use studies. Secondary emphasis in placed on the collection and analysis of existing ethnohistorical materials documenting the use of resources in Aniakchak or the surrounding area by park-affiliated Native communities. The focus in such traditional use studies is on specific cultural groups such as the Alutiiq and the Inupiaq reindeer herders, who have both long-term and presently active associations with park resources.

² As a matter of NPS policy, "Ethnographic Resource Inventories" are conducted by some NPS units in an attempt to identify, document, and catalogue places, objects or resources of past or present significance to park-associated communities, most commonly indigenous populations including American Indians, Native Alaskans, or Native Hawaiians. Under NPS management policies, each category of cultural resource can serve as the focus of a separate inventory, so that there are Archaeological Resource Inventories, Cultural Landscape Inventories, and others prescribed for individual park units. As indicated in the text, places that appear in these inventories are often of significance to contemporary park-associated populations.

³ The current study was performed in accordance with the CESU Task Agreement Scope of Work and under the authority and requirements of the Native American Graves Protection and Repatriation Act (P.L. 101-601), American Indian Religious Freedom Act of 1978 (P.L. 95-341), the Archeological Resources Protection Act of 1979, as amended (P.L. 96-95), the National Historic Preservation Act of 1966, as amended (P.L. 96-515), Executive Order 13007, and Release No. 5 of the Cultural Resource Management Guideline (UPS-28), and its supplements. It also conformed to the requirements of the University of Washington Human Subjects Committee.

⁴ There is an abundance of geographical information addressing areas outside of Aniakchak that may have relevance to some of the project's central themes. Places that are the focus of detailed discussion include, for example, Chignik Lagoon and vicinity, Port Heiden and vicinity, the lower reached of Meshik River, and Black Lake.

⁵ The project archive is to be held at the National Park Service Alaska Regional curatorial center, in Anchorage, Alaska.

"On my asking the toyon, by what means they reached the island, he very gravely affirmed, that it was formerly separated from Alaska by a river only; and that the present channel was made by a large otter, in the bay of Kenay, who one day took it into his head to push himself through between it and the peninsula" (Lisiansky 1968: 197).

"Opinions regarding the importance of southwestern Alaska and the Alaska Peninsula to the understanding of the prehistory of Alaska have been scarcely wanting" (Dumond 1972: 29).

Some researchers have gone so far as to suggest that an understanding of the precontact history of the Alaska Peninsula is a prerequisite for understanding the cultural history for much of the rest of Alaska. On the extreme end of the spectrum in this debate, Bandi (1969) suggested that the Alaska Peninsula was the origin of almost all known Alaskan cultural groups over the last 3,000 years – a point that has not been wholeheartedly adopted by the larger community of archaeologists.⁷

The exact distribution of the Aluutiq communities on the eve of European contact has been a point of recurring debate, and scholars positing sharp boundaries to this cultural domain have often met with resistance in the larger field of Anthropology (Dumond 1977, 1965; de Laguna 1954). Dumond (1975: 50-54) places the boundary between Aleut and Aluutiq (or "Pacific Eskimo") at a point several miles west of the Chignik villages. The recurring attention to geographical boundary delineation has been exacerbated by an often bemoaned "failure to make clear distinctions between all of these groups has characterized many of the historical records" (Dumond, et al. 1975: 50; Dumond 1987). In light of the interconnections between communities, as well as the mobility associated with subsistence needs, volcanic eruptions, and other influences, one might argue that the focus on boundary delineation conceals as much as it reveals. The historical literature's "failure to make clear distinctions" may reflect the general homogeneity of cultural traits throughout the larger Alaska Peninsula region and the multi-ethnic character of many communities, especially during the tumult of the contact period.

⁶ Various accounts allude to this aspect of Kodiak oral tradition. Some accounts also allude to the separation of the Kodiak Island and mainland Alutiit by the expansion of Shelikof Strait. For example, one early historical account by Lisiansky was as follows:

⁷ The archaeological literature, in particular, has devoted considerable attention to this region of Alaska:

"includes those people who establish major hunting settlements on the unfreezing coast, located [on the coast with access to sea mammals, shelter from winds and accessibility by boat]; who fish seasonally; and who make seasonal excursions inland to take substantial amounts of caribou" (Dumond 1987: 33).

In addition to the enduring religious imprint of the Russian period on the religious practices of modern Alutiiq, there was also a discernible linguistic imprint, with Russian elements remaining detectible within the Alutiiq language into recent times (Hammerlich 1954).

⁸ Lantis (1946: 113ff.) suggests that the study area was within a unique transitional zone within the ceremonial complexes of Alaska, combining nominally Eskimo ritual complexes with traditions emanating from the Northwest Coast, with elements of the potlatch and other forms of status display. Institutionalized slavery has been variously interpreted as evidence of this cultural exchange as well (Townsend 1983).

⁹ Dumond has suggested that coastal settlements were generally located in well drained locations a minimum of 2 meters above sea level, near fresh water sources, fish and marine mammal opportunities; meanwhile, riparian fishing stations and hunting sites tended to be located at outlets from lakes (Dumond 1987).

¹⁰ Some authors describe the traditional gathering of large quantities of sod in the lands immediately surrounding villages as part of the construction of barabaras (Gideon 1989: 44).

¹¹ The residents of Aniakchak fit into Dumond's typological pattern for "Coastal Hunters, Fishermen, Caribou Hunters" of the Open Coast, which

¹² Russian records suggest that these hunting parties subsisted off of the meat of the seals and puffins they caught while stationed along the coast.

¹³ During the Russian period, economic and social integration between the Peninsula and Kodiak Island were reinforced by the placement of both areas under the jurisdiction of the Kodiak District office of the Russian-American Company.

¹⁴ Ivanof Bay appears to be somewhat unique among Alutiiq communities, in that the Russian Orthodox Church has not maintained a central role in community life.

¹⁵ The history of canneries is of such length in this area that a number of abandoned canneries in the area now appear to have their own heritage value (Mobley 2004).

¹⁶ For reference, the last *barabara* sod house in Old Harbor was built in 1925 – as Befu (1970: 30) notes, lumber became available during that period from canneries and other sources that effectively eclipsed the traditional house. Sod houses that were abandoned were sometimes used afterwards for storage.

¹⁷ The ethnic integration of Alutiit and other Alaska Native communities with other ethnicities, including Scandinavian and Russian immigrants, is widely documented in the historical literature addressing the study area (Mishler and Mason 1996; Black 1990; Fedorova 1973). Extensive intermarriage between Scandinavians and Alutiiq has been said to have resulted in the creation of a "new creolized social class" in communities of the area, but a class that largely adheres to traditional Native Alaskan social structures (Mishler and Mason 1996: 263).

¹⁸ Some researchers have depicted these kinds of destructive events as being significant galvanizing events that have helped to reinforce Alutiiq cultural identity by fostering cooperation between otherwise isolated communities. In addition to the Katmai eruption, for example, some note the inter-village cooperation and migration following the Good Friday Earthquake of 1964 as an important step in contemporary Alutiiq cultural revival (Partnow 1993).

¹⁹ Coupled with increased national attention to resource management concerns, this resulted in the first significant regulatory restrictions on commercial fishing. By 1959, fish traps were outlawed along the coast, one of the first significant regulatory developments mentioned by project consultants. By the late-20th century, the canneries and boats were increasingly retrofitted to accommodate new markets, including halibut, crab, shrimp, and other seafood products.

²⁰ In some respects, the wreck of the Exxon Valdez on March 27, 1989 recapitulated some of the dramatic environmental disturbances that have revisited this region throughout the course of human history as a result of catastrophic volcanic eruptions; yet, for the first time, a catastrophic environmental change resulted from human negligence instead of geological forces. The wreck and resulting oil spill released approximately 11 million gallons of oil into Prince William Sound. The massive oil slick that resulted drifted west by southwest along the Alaska Peninsula. The Exxon Valdez oil spill had diverse impacts, direct and indirect, upon the park-associated communities of the Peninsula, including Chignik and Perryville. Commercial fishing was restricted to much smaller areas, while subsistence harvests decreased (Palinkas, et al. 1993; Rooks 1992). Using statistical surveys, Palinkas, Downs, and Petterson (1993) demonstrated that the Exxon Valdez spill had disproportionately high social,

cultural, and psychological impacts upon Native Alaskan individuals, including individuals associated with the study area.

"coming from boats, I guess, going to Japan. All over, all the beaches: Hook Bay, Aniakchak – two-by-fours, two-by-sixes – all sorts of lumber. Amazing how ships used to loose deck loads in bad weather." (AC)

²¹ For example, among the Alutiit of Kodiak Island, Befu (1970: 35) documented extensive migration in and out of Old Harbor – including movements and marriages between villages as well as seasonal employment and subsistence tasks that take people elsewhere in the region. Migration to the Alaska Peninsula communities appears to have been particularly significant in these migrations.

²² In recent years, considerable attention has been directed to the nature of Alutiiq culture and cultural identity today. For a recent historical overview of Alutiig life on the Alaska Peninsula that is at once introductory, but rich in detail from oral history interviews, see Partnow (2001). For an interesting overview of some of the cultural changes that define life in nearby southeast Alaskan Native communities, see Fienup-Riordan (2000).

²³ Tuten (1977: 77-79) identified no fewer than six cultural landmarks along the Aniakchak coastline, including 1) Ball-Eyed Charlie's cabin on Amber Bay, built during the heyday of trapping in the 1920s-30s, and still used by sport hunters; 2) the Alaska Packers bunkhouse, and related structures from the era of commercial fishing on northern Aniakchak Bay; 3) the Aniakchak Clam Cannery building, largely dilapidated, on the south side of Aniakchak Bay; 4) the Carlson cabin on Kumlik Island; 5) the Brandal Cabin on Kujulik Bay, which was still in use and was at the center of a 160 land claim to the state at the time of the Tuten study; and 6) the Nielson cabin on the south end of Aniakchak Bay, formerly owned by Charlie Weederman, no longer standing. Tuten concluded that the interior appeared to have relatively few physical traces of human activity.

²⁴ From this point forward, this document will emply the convention of using interviewees' initials to identify the source of specific information or quotations. A list of interviewees' initials are included in the Sources section at the end of this document.

²⁵ In the 20th century, drift lumber was used extensively for building materials. Axel Carlson recalled lumber

²⁶ Despite a strong coastal emphasis in traditional house placement, a number of individuals are apparently wary of placing settlements too close to dietarily important salmon-bearing streams and estuaries, as this is said to adversely affect the salmon runs. (AA) Al Anderson, for example, reported that many people had opposed the recent development of the village at the mouth of Chignik Lake because they felt that it adversely affects the highly important Chignik sockeye salmon run. This geographical predilection appears to be rooted in local custom and may have affected the placement of settlements historically within what is today Aniakchak.

²⁷ On these fish traps, see Partnow (2001: 139) and Morseth (2003).

²⁸ Black Creek drains into the Lagoon. Locals from the Aniakchak area often refer to this creek as "South Fork."

²⁹ Interviewees did not identify the name of this man from the Kalmakoff family.

³⁰ The North Fork Aniakchak River is locally known as "Misery Creek." This may be due to the fact that it is known as a difficult creek to trap and travel (Pedersen 1997). According to Alec Pedersen, "Mystery Creek," which appears on USGS maps of the area, was misnamed and misplaced; he suggests that the name is supposed to be Misery and in the location of the North Fork Aniakchak River.

³¹ A number of islands are locally known by the names of settlers or fox farmers from this period, even as they are known by other names and recorded by these other names on maps and charts. Another example is "Benny Benson's Island," which was the site of Benson's fox farm. Benny Benson designed the Alaska state flag. Also, Charlie Olson's Island, also known as Unavikshak, sits east of Cape Kumliun. "Fat" Charlie Olsen had a fox farm there in the 1920s and 30s. He left it to the Carlson brothers. Rudolf, Edwin, and Axel. Rudolf & Tina and Axel Carlson stayed there a short while at the beginning of WWII.

³² Caribou Cabin is a hunting cabin used by members of the Port Heiden community.

³³ The placename "the Plateau" refers to more than one location in the local vernacular. One "Plateau" consists of the largely level top of long ridge that runs between Barabara Creek and Birthday Creek. Another "Plateau" consists of a large flat area on western side of Aniakchak Crater.

³⁴ Individuals associated with the area include, but are not limited to: Alec & Buelah (Lind) Brandal, Frank and Mary (Brandal) Grunert, and George "Bobbin" and Florence (Grunert) Anderson, Henry and Lillian (Anderson) Erickson, Clements and Viola (Erickson) Grunert, Alec and Vivian (Erickson) Brandal, and Julius Anderson.

- ³⁹ Ronald Lind noted that porcupine foot pads were sometimes used ceremonially and/or medicinally to help young people become steady walkers who could walk all day.
- ⁴⁰ A detailed overview of seasonal subsistence activities among the Pacific Coast villages can be found in Alaska Department of Fish and Game's Alaska Habitat Management Guide (ADF&G 1985: 464-68), Fish and Wildlife Uses in Six Alaska Peninsula Communities (Morris 1987: 86-92), many annual reports, and other sources.
- ⁴¹ Ethnographic literatures relating to this region suggest that these rituals may have been conducted to demonstrate respect for the animals and thereby insure their return, but this is not discussed in project notes.
- ⁴² Certainly, this trend has earlier historical precedents. Some families participated in reindeer hunting, facilitating new dietary patterns and changing resource use scheduling in the 20th century. (PS) Fur trapping and trading influenced hunting patterns during the Russian period. Interviewees for the current project did not discuss this point, however.
- ⁴³ Fred Gungas reportedly trapped this creek on the south side of Cape Ayutka, in the early 1900s.
- ⁴⁴ The names "First Cape" and "Second Cape" appear occasionally in interviews with residents of Port Heiden. These terms refer to the first and second prominent capes northeast of Port Heiden, respectively.
- ⁴⁵ Guides included Ray McNutt (Sterling AK), David Lazer (Palmer AK), Jack Lewis (Kenai, AK), John Pangborn (Anchorage), Ed King (Naknek, AK), Stephen Black (Kenai), and Gary LaRose (Palmer, AK). These hunting camps were dispersed widely throughout the proposed Monument; exact locations can be recovered in Tuten (1977: 67-75).

³⁵ Project fieldnotes mention that this valley "Flows into Kujulik Bay 2 miles west of BM Kuju marker."

³⁶ Taps Point is a prominent point on the north side of Kujulik Bay, but in the local vernacular the name refers more broadly, to an area including mouth of Rudy Creek.

³⁷ "Deadman's Creek" near this place was named in reference to a body that was recovered at this place. The same is true of "Deadman's Island."

³⁸ References to "the lake" also appear to have sometimes referred to Black Lake and other lakes on the northern drainages of the Alaska Peninsula.

⁴⁶ The "costs" of the hunt have fluctuated dramatically in recent decades, whether they are measured in terms of dollars spent for fuel and gear or in "opportunity costs" of dollars not earned at alternative economic tasks. While the subsistence hunt is clearly of economic benefit to Native Alaskan communities, there are times during which the subsistence hunt may have become "uneconomic." Despite this, the subsistence hunt persists through these times, pointing toward a wider range of social and cultural incentives for subsistence hunting. This point was not examined in a focused or systematic manner in the current research effort, but is suggested by some of the collected data.

⁴⁷ Some ATV users expressed a clear preference for larger caribou and moose, while it was suggested by others that larger animals were traditionally avoided due to undesirable meat characteristics. (HE, RE, JC) It is unclear how representative these statements are of general patterns, but suggests possible variability in overall hunting practices between different cohorts within area Native Alaskan communities.

⁴⁸ The NPS was not the sole agency mentioned by interviewees. Some also alluded to U.S. Forest Service opposition to ATV use.

⁴⁹ Yet not all sources concur on this point for specific places or communities. Based on research in 1976, Tuten (1977: 55), for example, did not report seal harvests in the Aniakchak area.

⁵⁰ On the hunting of sea lions near the study area, see Haynes and Mishler (1991).

⁵¹ Detailed accounts of traditional sea-otter hunting practices are available in a number of early historical sources, and may be relevance for both interpretive and resource management efforts at the park. See, e.g., Gideon's accounts from 1804-05 (Gideon 1989: 56).

⁵² Wolves and Wolverines' leg tendons were cut in both the front and back legs "so they don't come after you." If encircled by wolves, one should shoot the furthest animal out, which will be their leader, or burn laudanuk (a waxy substance that smells like incense); the wind carries the smoke and "parts the wolves." (RL)

⁵³ Henry Matson commented on the capriciousness of these bounty policies, noting that bounties had also been available at different times for eagle feet and Dolly Varden trout tails, as both of these species were seen as detrimental to salmon populations.

⁵⁴ Virginia Aleck recalled

"Dad said never shoot a bear with white ears and a collar. It's bad luck because this bear doesn't keep it's bear form - it can change to other animals."(VA)

The Alaska Department of Fish and Game (1985) reports that families in this region principally hunt ducks (especially pintails and green-winged teals), geese (especially emperor geese), and ptarmigan. Historically, bird skins (especially murre and puffin) were gathered along the Peninsula for the manufacture of clothing, while other body parts, such as puffin beaks, have had widely acknowledged ceremonial significance (Khlebnikov 1994: 27).

⁵⁵ Mike Grunert and Alec Pederson recalled a story about Clemens Grunert Sr. who was living in a cabin near the "CRPA bunkhouse" one winter. He came home and set his gun down by the door. The door wouldn't open and then he realized that there was a bear inside. The bear reportedly bit his gun barrel.

⁵⁶ Pintails are called "sprigs" in the local vernacular.

⁵⁷ Ronald Lind notes that, traditionally, ptarmigan feet were strung around the neck or waist of a boy to make him a fast walker and allow him to move quickly on the hunt.

⁵⁸ Seagull egg collection in the area is also suggested by Alaska Department of Fish and Game (1985).

⁵⁹ Befu (1970) noted a similar bifurcation in trapping practices among residents of Old Harbor, on Kodiak Island.

⁶⁰ Lost Harbor, on north side Cape Kumlik may have been trapped by the Osbekoff family.

⁶¹ This area was an early homesite of Matson family. Olaf and Matrona Matson lived here a few winters. Henry Matson was born at the homesite up this creek in about 1920. The cabin was along the creek just as it exited the mountains.

⁶² Smelt were said to be fished from under the ice in a lake near Meshik River, called "Smelt Lake." The location of this lake is unclear, but it is unlikely that this refers to Meshik Lake. (BC) They were fished with bare hooks.

⁶³ Silver salmon were dried in the fall, especially in October. (BC)

⁶⁴ While not mentioned by consultants for the current study, salmon roe was also an important part of the traditional diet, and appears to have had ceremonial significance

(see, e.g., Gideon 1989: 43). A number of spawning areas on the Alaskan Peninsula were likely used for the acquisition of eggs.

"Soon after the NPS considered the area as a national monument, commercial clamming interests discovered the beaches of Aniakchak Bay. Razor clams were found in Aniakchak Lagoon as well as on beaches to the south. Axel Olson located a cannery at the southwestern end of the bay in the summer of 1932, and 12,948 pounds of clams were processed that year. Clams were hauled from the harvesting areas to the cannery by automobile. The cannery operated only for a short time. Local sources have suggested that it failed because the clams were too sandy, because transportation costs were too high, or because intensive harvesting reduced the clam population to noncommercial levels. The clam population eventually rebounded, and in recent years Kodiak fishermen have harvested the Aniakchak Lagoon clam beds. Commercial operations, however, never returned to the area."

⁶⁵ A close parallel can be seen in early accounts of Aluttiq knowledge of how to navigate baidarkas and hunt sea otter. Certain historical accounts devote considerable attention to these unique skills, which were said to be taught to boys from infancy (Lisiansky 202-04). For a general overview of the baidarka and the cultural importance of these watercraft, see Dyson (1986).

⁶⁶ From Michele Morseth fieldnotes on fishing trip with Mike Grunert, August 1-4, 2002.

⁶⁷ For an overview of the challenges of modern commercial fishing for Native Alaskans associated with the study area, see e.g., Langdon (1986).

⁶⁸ Kujulik Bay has been noted to be a preferred fishing area for commercial halibut fishermen from the Chignik villages. See, e.g., Tuten (1977: 50).

⁶⁹ On the rise and fall of the commercial razor clam harvest in this area, see Norris (1996). As Norris (1996: 431) reports.

⁷⁰ Clyda Koshbruk reported gathering wineberries (*Rubus* spp.) along the Alaska Peninsula, but it is unclear whether this is relevant to the study area.

⁷¹ For ethnobotanical studies produced in a related cultural context, see, e.g., Graham (1985).

"my dad said this was paradise. This is what he wanted. In the old country they couldn't kill for meat. The only thing they had elk down there but only the King got to kill them, Elk. But they eat a lot of fish though. I guess they had meat too. He just loved this country. It was so much like the old country. There was a lot of game there too but you couldn't kill them." (HM)

"We used to follow the traditions. My grandmother didn't even tell me anything when I had my period. She cut my long hair off and closed me in the house. My dad was gone but then he came home and asked what was wrong. I asked him if she was going to be okay, if I was going to live. He told me it was normal – what women have. He told me about hunting prohibitions surrounding menses and about bears. I hunted bears with my dad before menses—and I kept hunting after my dad died when I was 15." (VA)

⁷² Some interviewees, such as Elizabeth Kalmakoff, provided discussions of their religious attitudes and those of their largely Russian Orthodox families.

⁷³ Some consultants discussed the perceptions of the Alaska Peninsula by their immigrant parents or grandparents. Henry Matson recalled of his Norwegian immigrant father,

⁷⁴ Virginia Aleck, whose mother died when she was 8 years old, reports

⁷⁵ Some sources mention traditional belief in spirit beings associated with particular places, including giant and dwarf-like creatures; the dead also could be manifested in the form of spirits that persisted in certain places (Oswalt 1967: 216-21). Shamans' powers derived in part from their association with place-based spirit "helpers" or "guardians" of this kind; presumably the places that these spirits were said to dwell were perceived as having some type of cosmological importance. Shamans and other categories of specialized ritual practitioners healers were widely mentioned in the early historical literatures (Donta 1992; Merck 1980; Lisianski 1968; Pinart 1873).

⁷⁶ A number of early chroniclers, such as Davydov (1816), Holmberg (1985), and Gideon (1989), provided anecdotal accounts of Alutiiq, and especially Koniag, ceremonies. Based especially on these sources, Lantis (1947) compiled a rich overview of Aluutiq and Aleut ceremonialism, including hunting and fishing ritual, rites for celestial events, life crisis ceremonies, memorial feasts, war rituals, secret society rituals, boat launching ceremonies, building ceremonies, first food/hunting rites, and others. Lantis generally characterized the ritual traditions of the Alutiiq of the Alaska Peninsula as being "more elaborate or severe" than those found in other

"Eskimo" contexts (Lantis 1947: 8). Overviews of Koniag oral tradition can be found in such sources as Lantis (1938b).

⁷⁷ There is some suggestion in the historical and anthropological literature for a precontact Aluttiq preference for residential sites with unobstructed views eastward, to facilitate morning rituals (Lantis 1947: 35; Veniaminov 1840(2): 120). Semisubterranean ritual structures – Kashims – looking much like a large barabara, were found widely throughout the region. These traditionally served as a center of ritual and social activity within the village, and one might argue that the community barabaras of today are a modern manifestation of this tradition. Sweat houses banyas - and other spaces of combined ritual and medicinal significance were found in contact-period Alutiiq villages and also have modern analogues today.

⁷⁸ Written sources note burials of community elites in structures within caves, sometimes accompanied by their worldly goods – slaves were sometimes killed and interred with them. Shamans are also reported to have been buried in caves - often in kayaks with their regalia – while commoners are reported to have often been buried under piles of boulders or boards. All of these burials appear to have been located in the hinterland of individual settlements (Lantis 1947: 10-11; de Laguna 1956: 66-101). Certain burial sites became the focal point of post-mortem ritual traditions. For example, Gideon reported that

"Formerly, the whale hunters used to secretly disinter recently buried bodies, carry these into the mountains, and render fat from them to smear the points of their whaling spears" (Gideon 1989: 60).

Holmberg (1985: 49) reported similar but subtly different rituals, including placing the remains of prominent men in streams and drinking of the water. Burial caves were also integral to "first-fruits" ceremonies, with people sometimes taking the first berries, oil, and fish of the season to deposit at burial caves (Lantis 1947: 42). Indeed, there has been some suggestion that certain burial sites occasionally served as territorial markers in pre-contact Alaska Peninsula traditions, in addition to having ritual functions (Simon and Steffian 1994).

⁷⁹ In truth, many of the themes identified in the original list of questions in Appendix A do not appear to have been given focused attention in the course of interviews. Instead, interviews centered principally on historical subsistence and recent commercial fishing.

80 Clearly, interviewees noted a number of environmental changes resulting from changes in local patterns of land and resource use, such as perceived overharvesting of fish and game on the Alaska Peninsula. Interviewees noted a number of

environmental changes, however, that were not attributed to changing local patterns of land and resource use. Axel Carlson recalls that there used to be more alder and more beaver along the riparian areas of the Aniakchak River when he was younger, in the 1930s and 1940s, than he has seen there recently. Yet, others noted that alder has become more widespread along the Alaska Peninsula generally, rebounding in the last 25 years. (HA, JL) Alder has been considered a desirable wood for smoking fish and game. (CK)