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KEYNOTE ADDRESS: THE CRITICAL NEXT STEP FOR ALASKA NATIVE LANGUAGES

Edna Ahgeak MacLean

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Alaska Native language maintenance and revitalization is the subject of Edna Ahgeak MacLean's keynote address, given on March 16, 2013, at the 40th Annual Meeting of the Alaska Anthropological Association in Anchorage. MacLean holds a Ph.D. in Education from Stanford University. Among her many accomplishments, she developed and taught Iñupiaq language courses at the University of Alaska Fairbanks from 1976 to 1987, served as president of Ilisaġvik College in Barrow from 1995 to 2005, and recently completed a comprehensive dictionary of North Slope Iñupiaq (MacLean, in press), which will be available in 2014.

ABSTRACT

Despite the establishment of Alaska Native language programs in Alaska's schools, use of indigenous languages is declining. The former policy of the federal Bureau of Indian Affairs to eradicate the use of Alaska Native languages in schools and homes will succeed unless the community members assist. Adults who were abused as school children for speaking their Native languages must now be recruited to champion language revival programs in their communities. The time is right for a realignment of resources and the creation of opportunities to nurture our indigenous languages.

Paglagivsi! Aarigaa maaniitchumiñagama. Greetings! It's wonderful to be here. I've enjoyed the conference and I thank Aron Crowell, director of the Arctic Studies Center, Smithsonian Institution, for inviting me. And thank you all for being here today. I am Edna Ahgeak MacLean, an Iñupiaq from Barrow, Alaska.

Many of you have heard of the abuse that Alaska Native children received from their teachers in the Bureau of Indian Affairs day schools for speaking their Native languages in the schools. The mistreatment was widespread, but I will focus on the issue using the Alaska North Slope region, and specifically my home town. The observations I make are based on the experiences that I shared with my fellow Iñupiat of Barrow, who are now the ages of fifty-five and older.¹

My intent is not to focus on the abuse itself but to try to understand my and my fellow classmates' reaction to the situation we find ourselves in today because of the abuse. Because I am included in this group, I will use the



first person pronouns “we” and “us” to refer to this group throughout my talk.

I am Iñupiaq. I grew up in the Iñupiaq culture and language of my community and was punished for speaking Iñupiaq in the school of the same community.

The purpose of schooling was to teach us English and for us to learn non-Iñupiaq knowledge so we could assimilate into the American culture quickly. The method that some of the teachers chose to teach us English was to beat Iñupiaq out of us.² I’ve wondered why the teachers chose this method when other noncruel learning methods were known.

Some of my friends dropped out of school because they did not understand English well and were punished for speaking Iñupiaq. Most of the time they were asking questions of other students in Iñupiaq for clarification of what the teacher wanted us to do.

Many of us hung in there because we had to. We endured the humiliation whenever any of our classmates were subjected to verbal or physical abuse for inadvertently speaking Iñupiaq.

We were sent to boarding schools by the Bureau of Indian Affairs for our high school years, away from our communities. Some of us enjoyed those years away from home, learning new things about the world we found ourselves in. But some of us felt terribly homesick and went back home and became immersed once again in the subsistence lifestyle and joined the workforce in our communities.

Many of us who stayed in the schooling process became more fluent and literate in the English language. We used Iñupiaq less and less, but we did not forget it. We returned to our Iñupiaq communities for the summers.

After graduation from high school in the late 1950s, 1960s, and into the mid-1970s, many of us left our home communities again for further schooling in trade schools and colleges, becoming carpenters, plumbers, electricians, heavy equipment operators, electronic technicians, airplane and car mechanics, secretaries, teachers, nurses, and lawyers.

Upon graduation from the trade schools and colleges, some of us melted into communities outside of our Iñupiaq communities, but many returned home to live and work.

We became immersed in the hunting culture with its associated activities and increased our knowledge and use of the Iñupiaq language.

Learning the English language and the American ways of behavior had been a good thing since we needed

the English language, the knowledge of the American culture, and the technology skills associated with English to succeed in further education and to participate in the society we found ourselves in.

We returned to our communities as the civil rights movement, the bilingual education discussion, the Alaska land claims movement, and the emergence of the North Slope Borough government began. We worked hard within our communities to see successful conclusions. These were exciting and stressful times. We needed a good command of both English and Iñupiaq in order to participate fully. We communicated in Iñupiaq with our elders and we communicated in English with our partners and our adversaries.

Unfortunately, during all of this time we did not speak Iñupiaq to our children. We spoke Iñupiaq with each other, with our parents, and other adult members of our communities, but we did not speak Iñupiaq with our children. We talked to our children in English.

Because we did not speak Iñupiaq with our children, we have lost Iñupiaq as the first language of communication in our homes and in our Iñupiaq communities. Now, English is the language of communication in almost all of our families and in all of our communities. And Iñupiaq has become an endangered language. Our young people do not speak Iñupiaq fluently. The child-bearing women in our communities do not speak Iñupiaq. Consequently none of the very young are learning Iñupiaq at home.

The elementary and the high schools are having difficulty finding Iñupiaq-speaking teachers for the local Iñupiaq language programs. The local college is having a hard time finding fluent Iñupiaq speakers to participate in an Iñupiaq language nest³ program for preschoolers.

The only fluent speakers of Iñupiaq left are us—the grandparent generation who were abused or were always under the threat of abuse for speaking Iñupiaq in school, and are now hesitant to speak Iñupiaq to children and to young people. We are the resource which must be mobilized and persuaded to speak Iñupiaq to our young people and young children. We are now retired from eight-to-five jobs and some of us are available to help in community Iñupiaq language programs, but we do not. We’ve allowed our children to attend Iñupiaq bilingual classes but we did not speak Iñupiaq to them at home when they returned from the schools. And now our children send our grandchildren to Iñupiaq immersion classes in the schools, but

we still do not speak Iñupiaq to either our children or to our grandchildren.

Many of us believe the abuse we experienced at the hands of our teachers is the reason we find ourselves unable to speak in Iñupiaq to our children and grandchildren. This is probably true. We need to understand why it is so hard to speak Iñupiaq to our children and grandchildren. Some of us have said it is because we love our children too much. We do not want them to experience what we had to endure in school. We are angry that we had to endure the harsh treatment from our teachers for speaking Iñupiaq, and now resent the schools for wanting our children and grandchildren to learn Iñupiaq. We are afraid that we will not be understood by our children and grandchildren if we speak Iñupiaq to them. We do not want them to experience the communication gap that we experienced so many times in our classrooms with a teacher who was intent on eradicating our Iñupiaq language, the only language we were fluent in. We are afraid that we will not have the patience to deal with children who may have a hard time learning Iñupiaq. We do not want to become like our teachers.

Although physical punishment was overtly painful, the humiliation received by children made to stand in waste baskets for periods of time for speaking Iñupiaq was crushing. In 1983, Sixten S.R. Haraldson, a renowned medical doctor and anthropologist, stated in his address to an Alaska Federation of Natives education conference: “socio-medical problems of increasing dimensions among traditional groups, such as alcoholism, divorce, suicide, neurosis, and juvenile delinquency have been explained by deculturation.” Deculturation via language replacement and relocation was the purpose of school for many of us. The disastrous results have been and still continue to exist in many Alaska Native communities.

In 1977, Eben Hopson, the first mayor of the North Slope Borough, made a statement which many of us agree with. He said:

Many of our people believed that formal educational systems would help us acquire the scientific knowledge of the western world. However, it was more than technological knowledge that the educators wished to impart. The educational policy was to attempt to assimilate us into the American mainstream at the expense of our culture. The schools were committed to teaching us to forget our language and Iñupiat heritage (Hopson 1977).

The relocation and punishment practices of the Bureau of Indian Affairs under the policy of eradicating our Native Alaskan languages is working. The Bureau of Indian Affairs may have shut many of us up from ever speaking our Native languages to our children and our grandchildren. Some of us have provided linguistic information to researchers, written grammars, dictionaries, and documented stories and histories—all activities that do not require us to speak Iñupiaq to children.

But now many of us realize we have to somehow change this behavior before it is too late. We are the last fluent speakers of Iñupiaq.

We do want our children and grandchildren to become fluent in Iñupiaq, but we do not help them learn to speak the language. This is our conundrum.

Our young people want to become fluent speakers of our Iñupiaq language. They want to identify with us. They want us to give them the Iñupiaq language. We have heard this plea from our young people at every conference for many years now. Yet we do not respond.

Some of us try but we quickly become discouraged as we face the prospect of not being understood. Now we are faced with a situation where the Iñupiaq language may never again be a language of communication in our families, unless the most critical resources—*us*, the Iñupiaq-speaking grandparents—are mobilized to speak Iñupiaq to our grandchildren in our homes.

I believe that in order to be effectively mobilized, we first need to understand why we experienced so much abuse from our teachers, then get rid of the barriers that prevent us from communicating in Iñupiaq to our grandchildren.

We, the grandparent generation, must come to grips with our experiences of abuse for speaking Iñupiaq, then move from there. We can no longer let those experiences impede our participation in the efforts to revitalize the Iñupiaq language on the North Slope of Alaska. We need to understand our children and our grandchildren will not be harmed by learning and speaking Iñupiaq. We need reassurances that our children and grandchildren will not fall behind academically in English by learning Iñupiaq.

A few of us know that learning another language well can only enhance a child's ability to learn, but many do not. Many children in other cultures, for instance in Europe, grow up in fully bi- or even multilingual households. This type of information needs to be shared to reassure us that we are doing the right thing by speaking Iñupiaq to our children.

We know that unless *we* begin to speak Iñupiaq and insist that Iñupiaq be spoken around our grandchildren and our young people, we will definitely lose our Iñupiaq language. This knowledge is a source of impending grief for us. We realize if we do not begin speaking Iñupiaq in our communities on the North Slope, the Iñupiaq language will become extinct. We know the schools cannot by themselves save our languages. They need help from us.

The children need to hear us speak Iñupiaq to them. They need to hear us tell stories in Iñupiaq. They need to hear us explain hunting practices to them in Iñupiaq. They need to hear us speak about the land, the ocean, the animals, and the Iñupiaq way of life in Iñupiaq.

The children need to hear us comfort them in Iñupiaq. And we need to hear our grandchildren speak to us in Iñupiaq.

I think we can achieve a critical point in the language revitalization process if we can just get all the players and programs involved working together, and convince the fluent Iñupiaq speakers to participate and be part of the process. I believe several components need to be in place for the revitalization process to begin and to gain momentum.

First, we need to develop systemic plans of action for each North Slope community to increase opportunities for our children and grandchildren to listen to and speak Iñupiaq in each of our communities. This plan must take into account the existing Iñupiaq language learning programs and efforts. Their successes and their resources or lack thereof need to be understood.

The Iñupiaq language programs in our schools are doing their best, but the school-based second language teaching does not produce students able to carry on a sustained social conversation about the weather, what's for dinner, or what's happening in our communities. There is a need for our schools to begin graduating students with basic conversational ability in Iñupiaq. This has not happened yet, but there is hope that this will be beginning soon, as the district has embarked on a new program for learning Iñupiaq based on an accelerated approach to learning a language. One of the basic premises of this approach is to use only the Iñupiaq language in interaction with the students.

The local college has embarked on the development of an Iñupiaq language nest program for a limited number of preschoolers. They are having difficulty finding enough Iñupiaq speakers to work with them. But they are moving in the right direction. No word of English is heard by the

preschoolers in the language nest. The only language they hear is the Iñupiaq language. According to the director of the program, the preschoolers are learning Iñupiaq fast.

This is a very recent undertaking and, if the college continues with this program, it may be the spark that ignites the revitalization of the Iñupiaq language.

In May 1975, my family moved to Denmark to spend a year there. Our sons were three and five years old then. We enrolled them in a Danish *børnehave*⁴ from Monday to Friday. They were speaking fluent Danish in two months. They were surrounded by Danish and they learned it quickly. The same thing happened in Finland when they were nine and eleven years old.

This is probably what is happening in the Iḷisaḡvik College Uqautchim Uglua [language nest] program for the preschoolers.

Besides the school and the college, there are no other organizations in the Barrow community using the Iñupiaq language on a daily basis to conduct a program or to carry on business.

Second, the systemic plans of action for each community must be developed in collaboration with representatives of local organizations, such as the Iñupiaq dance groups, churches, whaling captains' associations, to name a few. Each organization will be asked if they want to be part of the Iñupiaq language revitalization effort, and, if so, to identify what opportunities they can provide for the use of the Iñupiaq language in their organizations. For example, a church may be able to provide space for an Iñupiaq language choir classroom, hopefully with a couple or more Iñupiaq-speaking choir masters. The Ukpeaḡvik Iñupiat Village Corporation may be willing to produce durable signs in Iñupiaq for restaurants, churches, schools and ask each organization to hang a sign on their premises. The Iñupiaq dance groups may be able to conduct their practices all in Iñupiaq. The systemic plan can also provide for a program of Iñupiaq language materials development following the example of the Pūnana Leo [language immersion program] of Hawaii, where they asked community members to create materials which would be used in the language nests.

Third, there must be a cadre of dedicated fluent Iñupiaq speakers willing to work alongside the local organizations. For example, there could be a cadre of Iñupiaq speakers willing to nurture preschoolers in Iñupiaq in the language nests which could be established in some of our communities. Each cadre of Iñupiaq speakers could be available as resources or as instructors if needed. This will

take some practice on our part. We have to determine that we will *not* switch to English when we face a young child. A flexible plan of participation will also be needed for the fluent speakers who want to help out in the Iñupiaq language programs. Most of the fluent Iñupiaq speakers are above the age of fifty-five years, so many may not want to or cannot participate all day long from eight to five, so flexible hours of participation will need to be established.

Fourth, we need coordinators who will not give up easily and will devote their time to the development and maintenance of the Iñupiaq language on the North Slope.

In short, we need information, training, and good systemic plans for each community together with organizers with good communication skills and cooperative spirits to make any language revitalization successful. Being prepared, I believe, is the best motivator.

In conclusion, we need not stand by helplessly as we witness the gradual loss of our Iñupiaq language. We can be mobilized to turn the tide by experiencing the joy of hearing our grandchildren speak to us in Iñupiaq. That happened to me a couple of weeks ago. One of my two granddaughters lives in the same city I do. I speak Iñupiaq to her whenever I am with her. I know she understands me most of the time when I speak to her in Iñupiaq, but she had not yet answered me in Iñupiaq, except to say *quyanaqpak* ["thank you very much"] when prompted, until last week.

Last week while driving her home from school, I asked her in Iñupiaq if she liked the raspberries I brought for her snack. Without hesitation, as she was readying herself to play with one of her games on my iPhone, she answered, "*Ii, aaka. Aarigaa!*" Those three words in Iñupiaq spoken without hesitation brought joy to my heart. Tears of joy sprung to my eyes. I had not anticipated that burst of joy. It was beautiful!

I want to experience the joy again. I want all of us to experience the joy I felt when my granddaughter answered me in Iñupiaq.

Quyanaqpak.

ENDNOTES

1. "From about 1910 to about 1960 a deathly silence descends over the Alaska Native language scene. This third period, half a century long, of complete suppression, was to prove fatal for many of the Native languages. During this time the school system was transferred from the U.S. Bureau of Education to the

Bureau of Indian Affairs, which together with most of the mission schools continued the active anti-Native language policy" (Krauss 1980:24).

2. "However, the long dark age, 1910 to 1970, of linguistic suppression in the schools had meanwhile done irreparable harm to the life of most of Alaska's twenty Native languages. Children were slapped, beaten, ridiculed, punished for speaking their own languages in school" (Krauss 1980:98).

See also *History of the Iñupiat: Nipaa Ilitqusipta / The Voice of Our Spirit* (2008), a DVD produced by Naninaaq Film Productions for the Alaska Native Education Program, North Slope Borough School District, Barrow.

3. A language nest program is an immersion-based approach to language revitalization.
4. A *børnehave* is similar to an all-day preschool and kindergarten. The children receive structured play times and lessons as well as care and nutritional meals.

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INTRODUCTION: RETURNING TO RUSSIAN AMERICA

Kenneth L. Pratt

A primary objective of this special section of Volume 11 of the *Alaska Journal of Anthropology* (AJA) is to honor the memories of Lydia T. Black (1925–2007), Richard A. Pierce (1918–2004), and Barbara S. Smith (1936–2013), the passing of whom marks a great loss to the scholarly study of Russian America. The seven papers in this section serve to remind researchers that the field of Russian America studies contains a lot of fertile ground for scholarship and lends itself to interdisciplinary approaches.

The three papers by Katherine Arndt, Dennis Griffin, and Ken Pratt are essentially detective stories. Arndt critically examines a mid-nineteenth-century Russian manuscript describing a hostile encounter in 1792 between a Russian/Fox Aleut party and a group of Katmai Sugpiat in an effort to determine *where* the event actually took place. In the process she adds important context to an interesting account that (despite questions about the accuracy of some details) rings true in terms of the mutual distrust exhibited by the opposing parties and the ebb-and-flow nature of the event itself. Griffin describes archaeological and historical research findings based on his effort to verify the site of an 1809–1810 Russian hunting camp reportedly located on remote St. Matthew Island. His paper exemplifies the attention to detail necessary to successfully use scraps of information from multiple sources to solve a very specific site location puzzle. In a somewhat similar fashion, I carefully review known data sources about a Yup'ik Eskimo group commonly identified as the Aglurmiut to determine their original homeland and evaluate the veracity of disparate accounts about their reported migration to the Bristol Bay region. My conclusions reflect a reliance on Yup'ik Eskimo oral traditions, cultural history, and place-naming practices.

Three other works by Evguenia Anichtchenko, Ryan Jones, and Alexander Petrov inform readers of certain practical, administrative, and philosophical problems related to maintaining the Russian colonies. Anichtchenko focuses on the fleet of the Russian-American Company (RAC), describing its development in a way that clearly reveals the great dependence of Russian colonization efforts on the fleet. Jones discusses some pointed criticism of RAC hunting policies and conservation measures by the Creole Alexander Kashevarov. His work demonstrates that controversy has surrounded subsistence management in this part of the north for nearly two centuries—much longer than many of us probably realize. Petrov uses newly (re)discovered documents to briefly examine a difficult period in the early history of the Russian Orthodox Mission in Russian America and a related grievance filed against the RAC by a member of the clergy. The piece underscores the reality that subtle tensions often existed between the clergy and the RAC and that neither party could afford to alienate the other.

Finally, Angela Linn brings us back to the present by describing a recently completed project by the University of Alaska Museum to stabilize and preserve a Russian blockhouse from the site of Kolmakovskiy Redoubt, on the middle Kuskokwim River. Her essay shows that valuable records from the Russian-America period are not limited to the medium of paper and also must be handled with extreme care.

Thanks to each of the contributors for sharing their work and making this special section become a reality. Hopefully, these articles will stimulate additional research on Russian America in the future.

MISPLACED HISTORY: A CONFRONTATION NEAR CHIGNIK BAY, ALASKA, JUNE–JULY 1782

Katherine L. Arndt

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ABSTRACT

A mid-nineteenth-century manuscript by A. S. Polonskii reports a hostile encounter between a Russian/Fox Aleut party and a party of Katmai Sugpiat in 1782. The published literature has questioned neither that the incident occurred up near Cook Inlet, or at least somewhere near Katmai village, nor that the people involved were natives of Katmai. A careful reading of Polonskii's description, however, suggests that the encounter took place farther to the southwest, in the vicinity of Chignik Bay, and, while some of the "Koniags" involved may well have been from Katmai, it appears that others were from Kodiak Island.

INTRODUCTION

The earliest reported direct encounter between a Russian party and people who may have been Katmai Sugpiat¹ occurred in 1782. The source of this information is an undated manuscript by A. S. Polonskii that recounts the voyages of Russian fur traders in the Pacific from 1743 to 1800. According to Andreev (1948:27), it was compiled in the 1850s and 1860s, while its author was in government service in Okhotsk, Yakutsk, and Irkutsk.

Polonskii's work is problematic for several reasons, succinctly summarized by Lydia Black (1984:10–12) in her book on Atka ethnohistory. They all come down to one basic difficulty: while scholars have assumed that the author based his work on Siberian archival documents that have since been lost, Polonskii did not cite his sources. This makes it difficult to distinguish which parts of his narrative are based on primary documents, which parts are drawn from derivative works, and which are simply his own interpretations of the materials he had at hand. Andreev found that, in instances in which he was able to check Polonskii's work against original sources, the author proved reliable. Black, however, pointed out that in his own day Polonskii was accused of deliberately inserting passages blackening the Russians' image into the published version of what he claimed to be an original

document. As did Andreev before her, Black urged caution in using any material from Polonskii that had not been verified in other sources and called for publication of the manuscript in full, together with a critical analysis (Andreev 1948:27–28; Black 1984:10–12).

Black based her initial assessment on contradictions she found when comparing primary sources or early summaries of primary sources with more recent works that drew some of their information from Polonskii. Subsequently, she obtained copies of the manuscript itself, completed a draft translation, and began the onerous task of critical analysis and annotation before putting the project aside. In her preliminary annotations to the draft translation, Black pointed out many discrepancies between Polonskii and earlier sources in the details of various voyages, as well as instances in which Polonskii omitted details readily available in other sources and instances in which he added new details from sources he did not identify. Both in the annotations and in my own discussions with her concerning the reliability of the manuscript,² however, Black repeatedly emphasized one point: Polonskii did not have a good grasp of Alaska geography. This led to confusion and outright errors in some of his voyage narratives, particularly in cases in which he added what he believed to be the

mid-nineteenth-century equivalents of obscure or obsolete place names.

If the Polonskii manuscript is so problematic, why discuss its description of an early encounter between Russians and Katmai Natives that cannot be verified in other known sources? The simple answer is: because others have already cited it, sometimes uncritically (Black 1999:38–39; Bolgurtsev 1998:152; Grinev 2009:405, 430; Grinev and Makarova 1997:106; Liapunova 1987:76–77; Partnow 1993:108, 2001:43, 65). Now that brief summaries of the encounter have appeared in the published literature, any study of Katmai ethnohistory would be incomplete without some assessment of it. More importantly, however, it is discussed here, as it was in others' publications, because many details in the description ring true ethnographically. The encounter could well have unfolded as described.

DESCRIPTION OF THE CONFRONTATION

Polonskii's description may be summarized as follows³ (words in parentheses are my interpolations):

On 29 May (8 June)⁴, 1782, the Russians Dmitrii Polutov and Dmitrii Pankov left Unimak Island in four *baidaras* (large, open skin boats) carrying an unspecified number of men,⁵ accompanied by a party of (Fox Islands) Aleuts in two hundred *baidarkas* (kayaks).⁶ They intended to settle work parties beyond Unga, near Aliaska (Alaska Peninsula) and Semidi and Sutkhum (Sutwik) Islands, where there were many sea otters. The Aleuts were to hunt, while the Russians were to guard them against Aliaska Koniags ("Aliaskinskie koniagi"), the Aleuts' ancient enemies. At the same time, the Russians hoped to make the acquaintance of the Koniags, "known only through rumor,"⁷ in order to establish trade with them and hunt sea otters in their territory.

Beyond Unga, on Aliaska, they found a suitable place to settle a work party in "Koliugida Bay" (here Polonskii inserted "Kenaiskaia," the Russian name for Cook Inlet). Fish were plentiful in the bay, and the Aleuts said that there were sea otters in the area. Twenty-three men were left to put up a food supply against the party's return and to build winter quarters so that an Aleut work party could be left there for the winter if the sea otter hunting proved to be good.

The main party left the bay on 18 (28) June. The Aleuts got ahead of the Russians and, approaching "Sanikliuk Island," they noticed a Koniag party from "Kat'ma settle-

ment on Aliaska" that had landed there. The Aleuts notified the main party and took cover behind a point or cape. Polutov and Pankov approached the landing place, but remained a good distance from shore. Through an interpreter they assured the Koniags that they had not come in war but only wanted to hunt sea otters at Sutkhum. The Koniags responded that they were not dangerous, either. The Russians then sent the interpreter and three Aleuts ashore with gifts of beads, and when that party returned, asked permission to come ashore to trade and to be given a hostage for the duration of the trading.⁸ The Koniags consented, gave the Russians a hostage, and demanded hostages in return. As soon as the Koniag hostage was received, however, the Aleuts rushed ashore and the Russians could neither restrain nor protect them. The Koniags seized a *toyon* (headman, 'chief') from Akun Island, and the remainder of the Aleuts retreated.

Attempts to ransom the *toyon* failed. The Koniags painted their faces, began to dance to rattles and drums, and slashed the face and arms of the bound *toyon*. They also continued to shoot at the Russian party with their bows. While the *promyshlennye*⁹ deliberated over what to do, a gunshot was accidentally fired from Pankov's *baidara*, and others began to fire as well, wounding and killing some Koniags. In the confusion that followed, the *promyshlennye* tried to rescue the Akun *toyon* but were repulsed. The battle continued until evening.

The *promyshlennye* spent the night on the water. The Koniags carried their own *baidaras* to a hill about forty *sazhens*¹⁰ (ca. 85 m) from shore and secured themselves there. Their small *baidaras* (*baidarkas*?) they carried to the top of a mountain, no less than a *verst* (ca. 1 km) from its foot, where their families were. There were nine large *baidaras*, (each?) holding twenty-five or more people; of those who had arrived in them, half were women and children. Up to thirty men had come in single-hatch and two-hatch *baidarkas*.

The next day, 19 (29) June, the Russian party went ashore and approached the hill. There the Koniags put up a defense, but, on being subjected to gunfire, they killed the captive *toyon* with a spear thrust and retreated toward the mountain. The women and children on the mountain rolled large rocks down on the pursuers, who had to give up the chase. The Russian party regrouped and again demanded hostages. When they were refused, they opened fire and continued shooting until a *toyon* from the Koniag side gave two young boys as hostages. The Russians gave gifts in exchange, but soon learned that they had been de-

ceived—women who had been Koniag captives but had managed to flee to the Russians during the battle revealed that the boys were not the *toyon*'s sons, but his slaves.

On 21 June (1 July), Polutov and a party of twenty men went to the mountain to make peace and to trade, while Pankov and ten men remained in reserve. The Koniags scoffed at Polutov's demand that they become Russian subjects and give real hostages, citing their own prowess in warfare and the Russians' reputation for betrayal. In particular, they mentioned *promyshlennye* who had been on Kodiak a year earlier and had killed a number of innocent people.¹¹ Firing commenced, three Russians were wounded, and Polutov and Pankov withdrew, posting guards on three sides of the mountain.

The following day, Polutov again went to the Koniags to demand hostages. The "Kat'ma toyon" agreed to give a daughter, but the others not only refused to give hostages but would not let the Kat'ma *toyon* do so either. An arrow was discharged at Polutov. Although the Koniag leaders beat the person who had discharged it and tried to convince the others not to start hostilities, they had no effect. Arrows flew until the Russians responded with gunfire. When negotiations recommenced, a *toyon*, his brother, and another kinsman each gave a child as hostage, while the "distant Koniags" still refused. The *toyon*, not trusting the Russians, kept his distance as he delivered a speech stressing several points. Here I quote from Polonskii's text:

(1) the hostage was given to ensure harmony and peace; (2) in the spring they go to Sutkhum, Semida, and farther along Aliaska toward Unimok to hunt sea otters, seals, and sea lions, while here, on Sanikliuk Island, they annually hunt birds for parkas; when in the course of such travels they met Unga, Unimok and Morzhovskie Aleuts who were coming there for the same purpose, it was considered a feat of daring to kill the foreign islander in a stealthy manner, but they are now renouncing such daring; (3) in the winter he will hunt silver foxes and sea otters, for which the Russians come, on Kodiak, where he has a father and four brothers, and in the spring of 1783 he will come to the harbor¹² to trade for them [the furs] and will bring *iasak* [tribute payment in furs]; and (4) his hostage is to be fed so that he does not starve (Polonskii n.d.:81 verso; my translation).

Once the Koniags had given hostages, the Russian party removed its guards and the Koniags were able to get some water. After they had put in a supply of water, however, they again became uncooperative. When Pankov

came to trade on 23 June (3 July), they said they had nothing to offer and, after bartering one sea otter, began to shoot arrows and roll rocks down upon the *promyshlennye*, killing one and wounding another. Thereafter, the Russian party laid siege to the mountain until 18 (28) July. During that time the Russians periodically went to the mountain and managed to barter some sea otters. The Koniags kept the Russians from their stronghold, but lost many to wounds and starvation; their bodies were found on both sides of the cliff.

The Russians finally gave up. They left the site on 19 (29) July and rejoined the work party in Koliugida Bay the next day. Polutov stayed in Koliugida Bay for the winter before returning to the harbor (on Unimak?) with his party (Polonskii n.d.:79 verso–82).

DISCUSSION

Prior researchers have not questioned that the reported encounter occurred either somewhere near Cook Inlet or at least as far north as the vicinity of Katmai village. Neither have they questioned that the people involved were natives of Katmai. A careful reading of Polonskii's description, however, suggests other possibilities. Specifically, the encounter appears to have taken place a considerable distance to the southwest of Katmai, in the vicinity of Chignik Bay, and, while some of the "Koniags" involved may well have been from Katmai, it appears that others in the group were from Kodiak Island.

Let us examine first the arguments for placing the encounter near Chignik Bay. The Russian party, intending to hunt on Sutkhum (Sutwik) Island and the Semidi Islands, left a work party at "Koliugida" Bay, where fish were plentiful, to put up food supplies and build a camp for the winter. Polonskii's description states only that the bay was "beyond Unga," and does not tell us how long it took the party to get there from Unimak, but if it was to be used as a base camp for hunting in the vicinity of Sutwik and the Semidis, it is reasonable to think that the bay was on the Alaska Peninsula opposite those islands. That would place it somewhere in the vicinity of Chignik and Kujulik bays. The main party left Koliugida Bay on 18 June (28 June), and in considerably less than a day reached "Sanikliuk" Island. As the Russians explained to the Koniag they encountered, their intent still was to hunt at Sutkhum. This reinforces the notion that they were still somewhere in the Sutwik vicinity, rather than far to the north.

Modern maps, and the most readily available Russian-era charts of the area, show a number of small islands lying near the Alaska Peninsula coast between the latitudes of the Semidi Islands and Sutwik Island, but none of them bears the name “Sanikliuk.” There is, however, one very early map that provides a clue to the island’s location. Published in Efimov’s (1964) atlas as Map 180, “Map of the Alaska Peninsula compiled by navigator Bocharov in November 1791,” its full title explains that it is based upon two different surveys by Bocharov, one along the south side of the peninsula completed in 1786 and the other along the north side in 1791. The map is not reproduced sharply enough to allow one to read the place names with confidence, but, in compensation, Efimov (1964:117) also provided transcriptions of all place names and other inscriptions that appear on it. Among them is Saniklug Island, which today is known as Chankliut (Figs. 1, 2).

Could Chankliut Island have been the site of the encounter? To answer that question one needs more detailed knowledge of the local topography than can be gleaned from the topographic maps at my disposal. The account refers both to a hill (*bugor*) about 85 m inland from the island’s coast and to a kilometer-high mountain (*gora*) nearby. Allowing for exaggeration, one would expect to find at least a knoll and a high hill at the site. If Chankliut lacks such features, it is worth considering other islands in the vicinity, particularly Nakchamik, which, on topographic maps, appears to be elevated at one end.¹³ The general notion that the encounter occurred somewhere in the vicinity of Sutwik and the Semidi Islands, rather than far to the north off Katmai village or even in Cook Inlet, is of greater interpretive significance than the precise location of the site.

Let us turn next to discussion of the identity of the “Koniags” involved in the encounter. In the context of the narrative, “Koniag” clearly refers to Sugpiaq speakers in general rather than to Kodiak Islanders in particular, and “Aliaskinskie koniagi” would appear to refer to Sugpiaq speakers from the Alaska Peninsula. That would be in keeping with the narrative’s initial identification of the Koniag party as being from “Kat’ma settlement on Aliaska,” and the interpretation that this really does refer to Katmai settlement on Alaska Peninsula. As the narrative progresses, however, there is reference not only to a “Kat’ma toyon,” but to a *toyon* whose home settlement is not named. The latter, in his speech to the Russians upon yielding up a hostage, mentioned not only that he planned to hunt on Kodiak during the winter, but that his father

and brothers were there. This suggests that some portion of the party the Russians encountered came from Kodiak Island rather than the mainland. Also suggestive that the Koniag party was drawn from multiple localities is the reference to a contingent of “distant Koniags” (*dal’nie koniagi*) who continued to hold out against negotiation with the Russians while the *toyon* with ties to Kodiak, and two of his kinsmen, offered hostages.

While these points are not conclusive evidence that the Koniag party came from places other than Katmai, neither do they allow us to dismiss such a possibility. It is quite conceivable that Sugpiaq speakers from several villages, including Katmai, annually converged on the same general area for seasonal subsistence harvest. That they were all massed at a single site on this occasion, rather than dispersed among separate camps, may have been more a response to the presence of a 200-*baidarka* contingent of their enemy, the Fox Islanders, than a reflection of their usual practice.

These issues of location and identity aside, there is much in the encounter as described by Polonskii that appears familiar in light of what we know of interactions between Russian fur hunters and the Native peoples of the Alaska Peninsula and Kodiak Island just a few years later. From the Russian side, there is the practice of gaining a foothold in new territory by establishing a work party (*artel’*) at a site where it could feed itself and near which it could hunt fur bearers and by creating ties with the local Natives through trade. The Russians demanded Native hostages to assure peaceful relations and perceived any refusal to grant hostages or to trade as a sign that the Natives had evil intentions against them. From the Native side, there is a ready consent to *exchange* hostages and, when the Russians failed to reciprocate, suspicion of the foreigners’ intentions and retreat to a more defensible position.

As the encounter deteriorated into a siege, we see the Russians—stubborn, proud, likely fearful of attacks should they fail to establish relations—demanding that the Natives become Russian subjects, give hostages, and engage in trade, and the Natives—equally proud, their own fears likely heightened by the presence of their traditional Aleut enemies and the fact that their families were in danger—holding their ground even as thirst and hunger took their toll. We see an attempt to deceive the Russians by offering slaves as false hostages and then, that ruse exposed, an offer of real hostages, if only to buy time to replenish water supplies and thus delay full capitulation. We see that the authority of those the Russians perceived

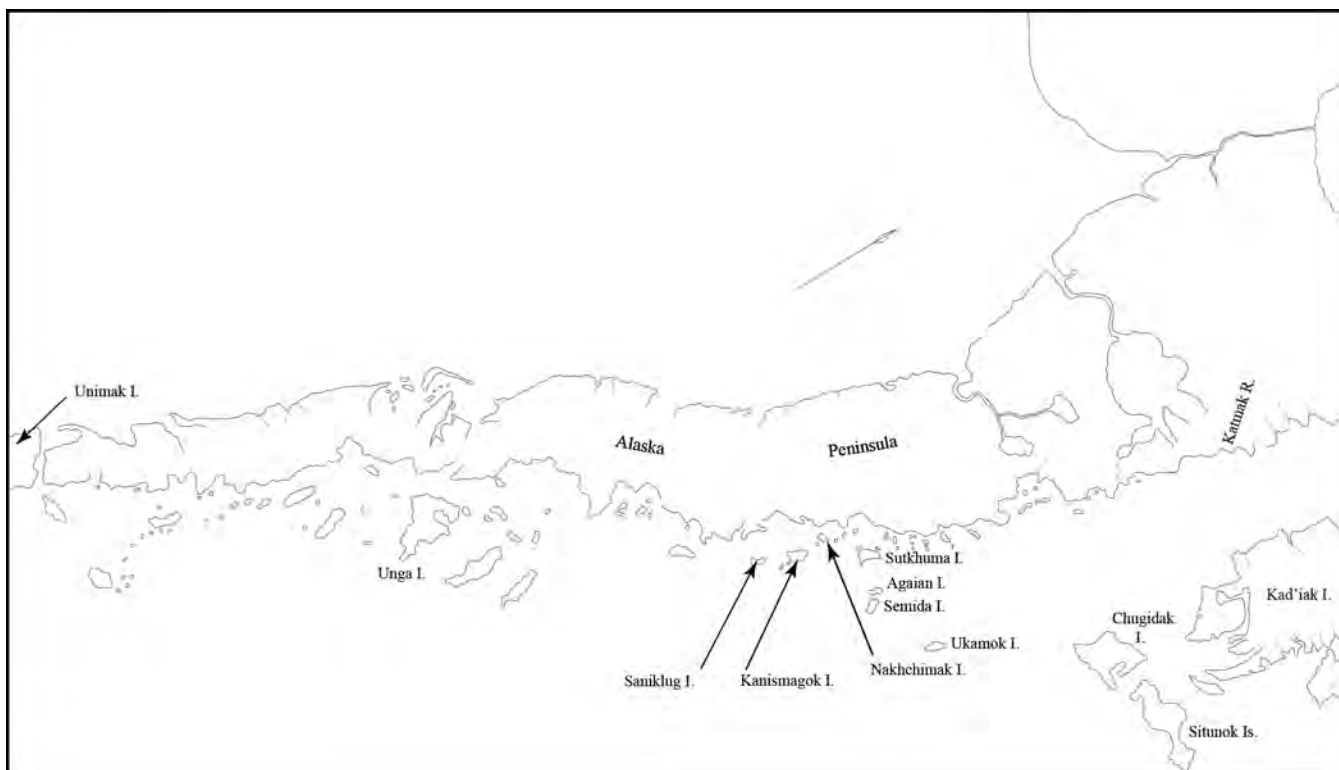


Figure 1. Map of Alaska Peninsula compiled by navigator Bocharov in November 1791. Redrawn by Dale Slaughter from Efimov (1964, map 180).

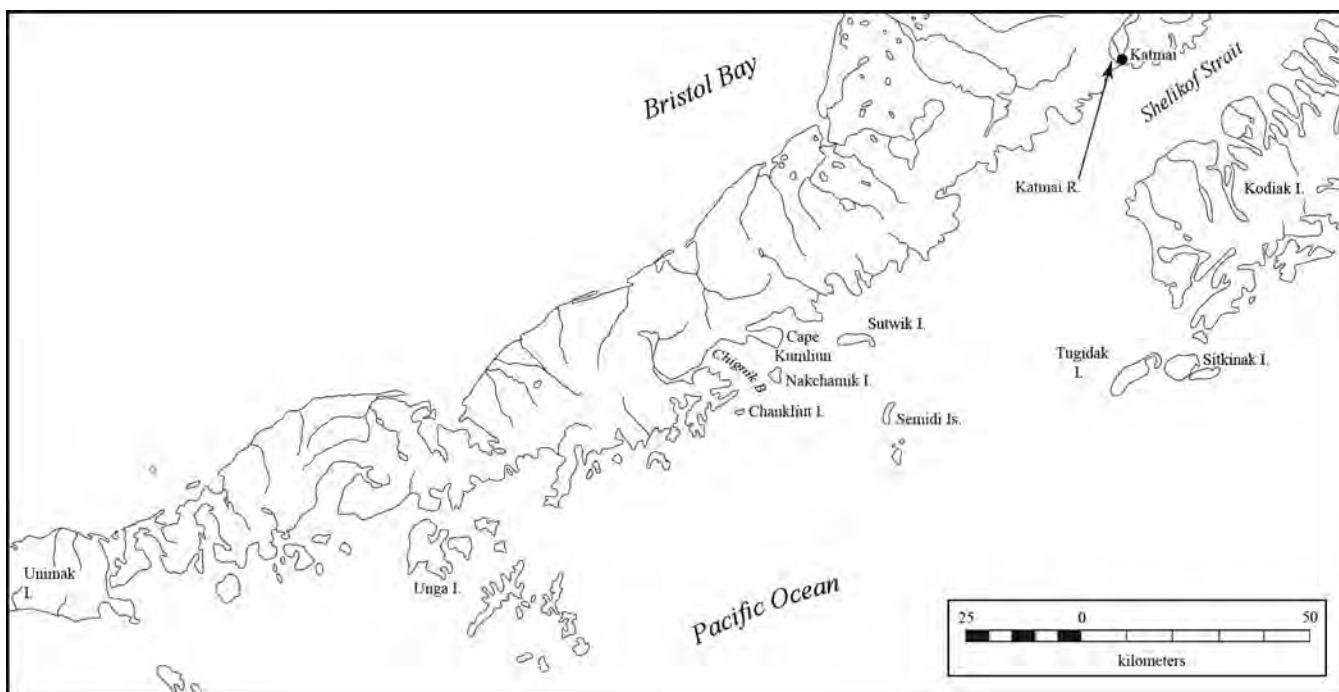


Figure 2. Modern map of Alaska Peninsula. Map by Dale Slaughter.

to be the Natives' leaders or *toyons* was limited, but that they were willing to make personal sacrifices for the good of the group. We also see limitations in the authority of leaders on the Russian side, especially with respect to the actions of the large Aleut party that accompanied them.

Polutov and Pankov did not bring to this encounter the heavy weaponry and determination to establish a permanent settlement that Shelikhov directed against Kodiak Island two years later, and the outcome was quite different. The siege, if it did indeed occur, was an unintended development and, once it had started, they had neither the influence to negotiate an amicable conclusion nor the strength to force capitulation. In the end they simply withdrew, having traded some sea otters under duress, but otherwise having achieved the opposite of their intention to establish friendly relations with the region's Natives. The "Koniags" of Katmai and elsewhere who survived the ordeal must surely have conceived some enmity toward the Russians, perhaps even comparable to the enmity they harbored toward their traditional foe (and now the Russians' apparent allies), the Fox Islanders.

Did the Russian/Aleut/Sugpiat encounter on "Sanikliuk" Island unfold as Polonskii described? Does Polonskii's account have any basis in fact whatsoever? Though the details are ethnographically and historically plausible, the evidence currently at hand provides no conclusive answers. If future researchers are to seek corroborating evidence in the form of oral tradition, place names, or even archaeological remains, it is important that they focus their attention on the proper geographic location. The internal evidence of Polonskii's narrative points not to Cook Inlet, not to some offshore island near Katmai, but to the vicinity of Chignik Bay and Chankliut Island.

ACKNOWLEDGEMENTS

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ENDNOTES

1. Sugpiaq/Sugpiat (singular/plural) is the ethnonym of the Native inhabitants of the Kodiak Archipelago, the eastern Alaska Peninsula, lower Cook Inlet, and

Prince William Sound. In the American published literature they are also known as Alutiiq/Alutiit and, less frequently, as the Pacific Gulf Yupik Eskimos.

2. Lydia Black, personal oral communications, March and April 2000.
3. Lydia Black provided me with three versions of Polonskii's text. The first is a microfilmed copy of the manuscript kept by the Russian Geographic Society, St. Petersburg. It is neatly written in ink (whether by Polonskii himself or by a copyist is not indicated) but has many editorial changes marked in what appears on the microfilm to be pencil. The author of the changes is not identified. The second version is a typed transcription of the unedited manuscript, provided by the late Rosa G. Liapunova for a joint Russian-English publication that she planned with Lydia Black. The third version is Black's own draft translation of the unedited manuscript, done in 1991. The summary presented here is based on Black's translation as verified against the microfilmed manuscript. Direct quotes are my own translation from the unedited manuscript.
4. Dates in the Russian manuscript are given according to the Old Style, or Julian, calendar, which in the eighteenth century was eleven days behind the New Style, or Gregorian, calendar that we follow today. In Russian America, however, it was only ten days behind because the international dateline had not yet been devised. I have inserted the New Style dates in parentheses throughout.
5. Though the description does not specifically say so, the *baidaras* were presumably manned by members of Polutov's and Pankov's vessel crews. The vessels themselves, Polutov's *Nikolai* and Pankov's *Evpl*, were left behind.
6. The narrative does not specify whether the *baidarkas* were single-hatched, double-hatched, or a mixture of the two types. Consequently, we can only guess that the Aleut contingent of the party numbered somewhere between 200 and 400 people.
7. Note, however, that one of the participants, Dmitrii Polutov, is the skipper who reportedly visited Kodiak Island aboard the vessel *Mikhail* in 1776 and made fleeting contact with one group of local inhabitants (Berkh 1974:53; Makarova 1975:70–71).
8. The taking or exchange of hostages to ensure peaceful relations was not only a longstanding custom in Russian-Native interactions in Siberia, but in the in-

teractions of Alaska Native peoples among themselves (Black 2004:6, 70).

9. *Promyshlennye*, commonly translated as “hunters,” seems here to refer to the *baidara* crews rather than to the Aleuts who accompanied the party in their *baidarkas*.
10. One Russian *sazhen* equals seven English feet (Dal’ 1882:129).
11. This appears to refer to Afanasii Ocheredin’s voyage of 1779–80 (Berkh 1974:57–58) or 1780–81 (Shelikhov 1981:41) to the Aiaktalik area.
12. Throughout this account, “the harbor” appears to refer to the place on Unimak Island where Polutov and Pankov had their base camps and anchored their vessels. Whether a “Koniag” would actually venture so deep into enemy territory to deliver furs, and so soon after his comrades had killed an Akun *toyon*, seems questionable.
13. On Bocharov’s map, Nakchamik Island is identified as Kanismagok, while the name “Nakhchimak” appears to be applied to present-day Cape Kumliun, shown as an island rather than a cape (Efimov 1964:117 and Map 180).

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DECONSTRUCTING THE AGLURMIUT MIGRATION: AN ANALYSIS OF ACCOUNTS FROM THE RUSSIAN-AMERICA PERIOD TO THE PRESENT

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ABSTRACT

Historical accounts describe the Aglurmiut as a Yup'ik Eskimo group from the Kuskokwim River area that migrated to Bristol Bay and the Alaska Peninsula in response to warfare with other Yup'ik groups and reportedly survived by allying themselves with the Russians at Aleksandrovskaia Redoubt on Nushagak River. Variable, vague, and confusing, the accounts leave several key questions unanswered, such as: Who were the Aglurmiut? What was their original homeland? These are the primary questions with which this paper is concerned. The evidence suggests that the so-called Aglurmiut were survivors of an altercation at the former settlement of *Agalik*, near present Quinhagak on Kuskokwim Bay, who fled to the area of Bristol Bay sometime around the year 1750. This finding simplifies the story of the Aglurmiut migration while at the same time supporting its veracity.

INTRODUCTION

Every human migration has a driving force behind it; in the case of the so-called “Aglurmiut” migration” the impetus was reportedly warfare between Yup'ik Eskimo populations in southwest Alaska (Fig. 1). Definitive details regarding the timing of the migration do not exist, but it is mentioned in the earliest historical accounts about this region, and indigenous oral tradition grounds the event in what is known as the “Bow and Arrow Wars” era. This period of internecine strife had its origins in pre-history, and the prevailing view is that it ultimately came to an end due to impacts tied to the 1838–1839 smallpox epidemic and/or the influence of Russian trading activities (e.g., Fienup-Riordan 1990:155, 1994:29; Frink 2003:172; Funk 2010:523). It is my opinion, however, that this warfare ended not only well before the smallpox epidemic but also prior to the establishment of Russian trade posts in the region, the first of which dates to 1819. I further believe warfare ended in the northern part of the

Yup'ik region earlier than in the southern part, where one seemingly well-attested battle may have occurred as late as about 1816 (VanStone 1988:91).²

At its root, the Aglurmiut migration is essentially a warfare story, one of many in oral and written accounts that imply warfare was endemic in the Yup'ik region during pre-Russian times. But such accounts should not be accorded validity without first subjecting them to critical analysis; to do otherwise is unscientific. Perhaps more importantly, to arbitrarily treat the large number of such accounts as a reliable indicator of the scope of indigenous warfare in the region is roughly equivalent to endorsing a dominant nineteenth-century social evolutionist perspective on “primitive” societies—the notion that the primeval state of man was war (e.g., Voget 1975: 255–257).³

My own perspective is that reports of warfare in the region, generally, are exaggerated in terms of scale. I instead think intergroup hostilities among the Yup'ik were far less

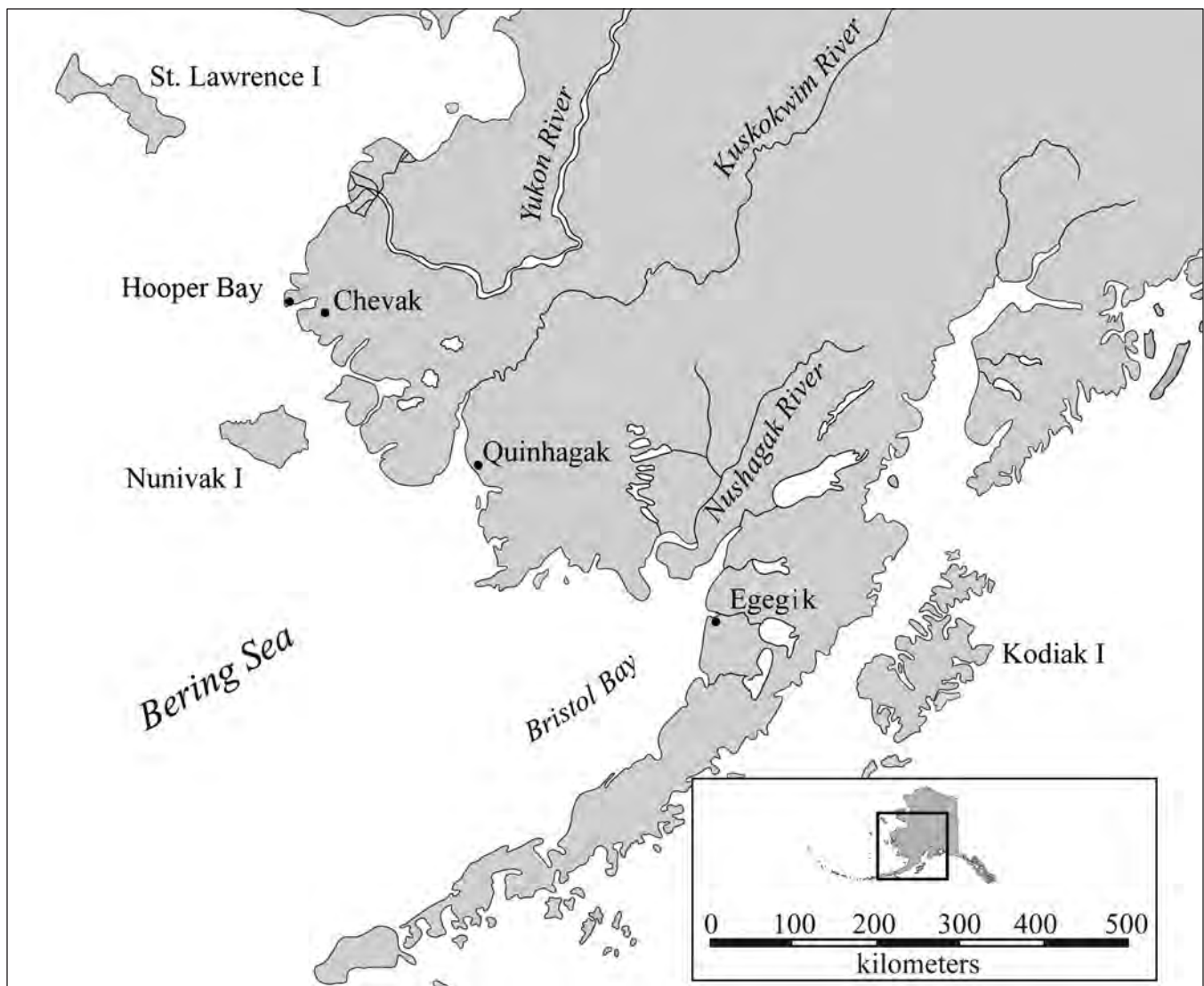


Figure 1. Southwest Alaska.

common and far more localized than other scholars have suggested (Pratt 2009a:269–276). My interpretation of the Aglurmiut migration relies on a similar local vs. regional level perspective.

CONTEXT OF THE BOW AND ARROW WARS

The sheer volume of oral history concerning the subject makes it clear that Yup'ik peoples did engage in warfare;⁴ some reported battle sites are sufficiently documented to either verify specific accounts or lend them substantial credibility. But just as we will never know exactly when such conflicts began, we can also never truly know what sparked most of them. As noted by Ann Fienup-Riordan (1990:153), however, “throughout western Alaska a single

story is repeatedly cited to account for the origin of warfare.” Referred to herein as the “eye-poking incident,” the story is very pertinent to the Aglurmiut migration. Fienup-Riordan summarized it as follows:

This is an old story, and narrators typically locate the incident in a village in their own region. According to tradition, two boys were playing with bone-tipped darts in the men's house. One of the boys aimed poorly and accidentally hit his companion in the eye, blinding him. The father of the offender told the father of the injured boy to go ahead and poke out one of the eyes of his son in retribution. However, the father whose son had been injured was so enraged that he poked out both of the offender's eyes, blinding him completely. The other father reacted by kill-

ing the first man's son. And so it went, the violence escalating and each man joining sides until the entire village, and eventually the entire region, was at war (Fienup-Riordan 1990:153–154).⁵

At least eight known locales in the region have been reported as the site at which the eye-poking incident occurred (Table 1, Fig. 2). Because none of the accounts are based on eyewitness testimony and the event they describe (if it really happened) clearly dates to precontact times, there is no reasonable justification for according one report more credibility than another (but see Funk 2010:538–539).

That said, the best-known version of the “eye-poking” story was published by Edward Nelson (1899:516–517) as the “Migration Legend.” He was told the story in 1880 by Lachar Belkoff, an elder of the lower Yukon River village of *Iqugmiut* [present-day Russian Mission] (Nelson 1880:42). In this account, the eye-poking incident occurred at the site of *Unglurmiut* (from *unglu*, “nest”), in reference to the nest of a giant eagle said to have been located on a nearby mountaintop (Hansen 1985:119–123; see also Pratt 1993). There are many other stories about this village (Hansen 1985:120; Nelson 1899:264), the tremendous size of which is implied by the name given to the watercourse along which it stood, i.e., “Thirty-Two Kazyga Slough” (Orth 1967:960), a reference to the number of men's houses (*qasgiit*) the site reportedly contained.⁶ This detail about the village's reported size should be kept in mind when evaluating the associated migration story, in which the eye-poking incident led to a state of civil war between *Unglurmiut* residents. The resulting factions reportedly migrated to the following locales: (1) the village of *Qissunaq* (ancestral to present-day Chevak), (2) Nunivak Island, and (3) the Nushagak area of Bristol Bay (Fig. 3).⁷

According to the story (Nelson 1899:516–517), the Bristol Bay faction was subsequently attacked by a Koniag war party, which it reportedly defeated, and then by Aleut warriors from Unimak Island, who were victorious. Oddly, the surviving migrants are said to have “joined with some of their friends from Nunivak island and attacked the people living at Goodnews bay...killing them and burning their village.” They then built a village in the same locality (i.e., Goodnews Bay) and were living there at the time the Russians arrived in the country. The people reportedly “resisted [the Russians] for some time [but finally scattered], some going back to Bristol Bay and others... [to] Nunivak

island.” In other words, the parties that supposedly split from one another on the lower Yukon River due to intense internal strife later made amends and joined together as allies in war.

The story concludes with the following statement:

During the time of the migration from the Yukon all of these people spoke one tongue, but having settled at three widely separated places, their languages gradually became different, the people at Bristol bay and on Nunivak island being nearest alike in speech (Nelson 1899:517).

This story has been treated as the definitive account of the Aglurmiut migration by some researchers (e.g., Jacobson 1998:xii–xix), but the migration was first mentioned in Russian historical accounts sixty years before Nelson's story was collected. A review of other versions of the migration follows.

THE AGLURMIUT MIGRATION

The name “Aglurmiut”—a modern Yup'ik rendering of what the Russians wrote as “Alegmiut” (Jacobson 1998:xvn27)—was historically applied to what Wendell Oswalt (1967:4) understandably described as “the most perplexing of all Alaskan Eskimo” groups (see also VanStone 1967:xxi–xxii). This group was first mentioned by Petr Korsakovskiy in 1818, who identified them as the “Alegmiut Indians” and reported that “they had rather a lot of conflict with neighboring peoples [who] have driven them from their real territory and now [the Alegmiut] reside at the mouth of Naknek River” (VanStone 1988:29–31). He also presented a description of the “Koingak Indians” (i.e., the *Kuinerraq* [Quinhagak] Eskimos) and described their village as lying at the mouth of Kuskokwim River (VanStone 1988:46–47). Korsakovskiy did not say where the “real territory” of the Aglurmiut was located. In the journals of his second (1819) expedition, however, the coastal inhabitants of Bristol Bay are referred to as the “Glakmiut,” which is presumed to mean the Aglurmiut (VanStone 1967:109, 1973:31), and said to be “constantly at war with [the] Eskimos living along the Kuskokwim River” (VanStone 1988:69n 46; see also Khlebnikov 1994:56; VanStone 1967:118–119).

Vasilii Khromchenko's 1822 journal noted that the constant migration of the Aglurmiut is:

still remembered by the old people, and constant war with other peoples had made them brave and

Table 1. Reported locations of the “eye-poking incident.” Keyed to Figure 2.

Site Number on Figure 2	Site	ANCSA Site Number(s)	Primary Source(s)
1	Unglurmiut (Lower Yukon River, about 20 km south-west of Russian Mission)	AA-11586 / AA-11587	Nelson 1880:42; 1899:328 (cf. Oswalt 1990:40–41, 228 <i>n</i> 1)
2	Kapuutellermiut (about 48 km southeast of Chevak)	AA-9626 / AA-10016	Friday 1983; George 1983; Nayamin 1983 (cf. Hansen 1985:171)
3	Kapuutelleq (about 32 km northeast of Scammon Bay [village])	AA-9382	Henry 1981, 1984
4	Englullupagmiut (about 55 km southeast of Chevak)	AA-9722	Bunyan 1984
5	Naparyarmiut (adjacent to Hooper Bay [village])		Phillip 1988
6	Quinhagak (east coast of Kuskokwim Bay)		Garber n.d.:1
7	Nelson Island (more specific location not mentioned)		Fienup-Riordan 1988:43–46
8	Pengurraraarmiut (on Platinum Spit, south entrance to Goodnews Bay)	AA-9951	Walter 1986

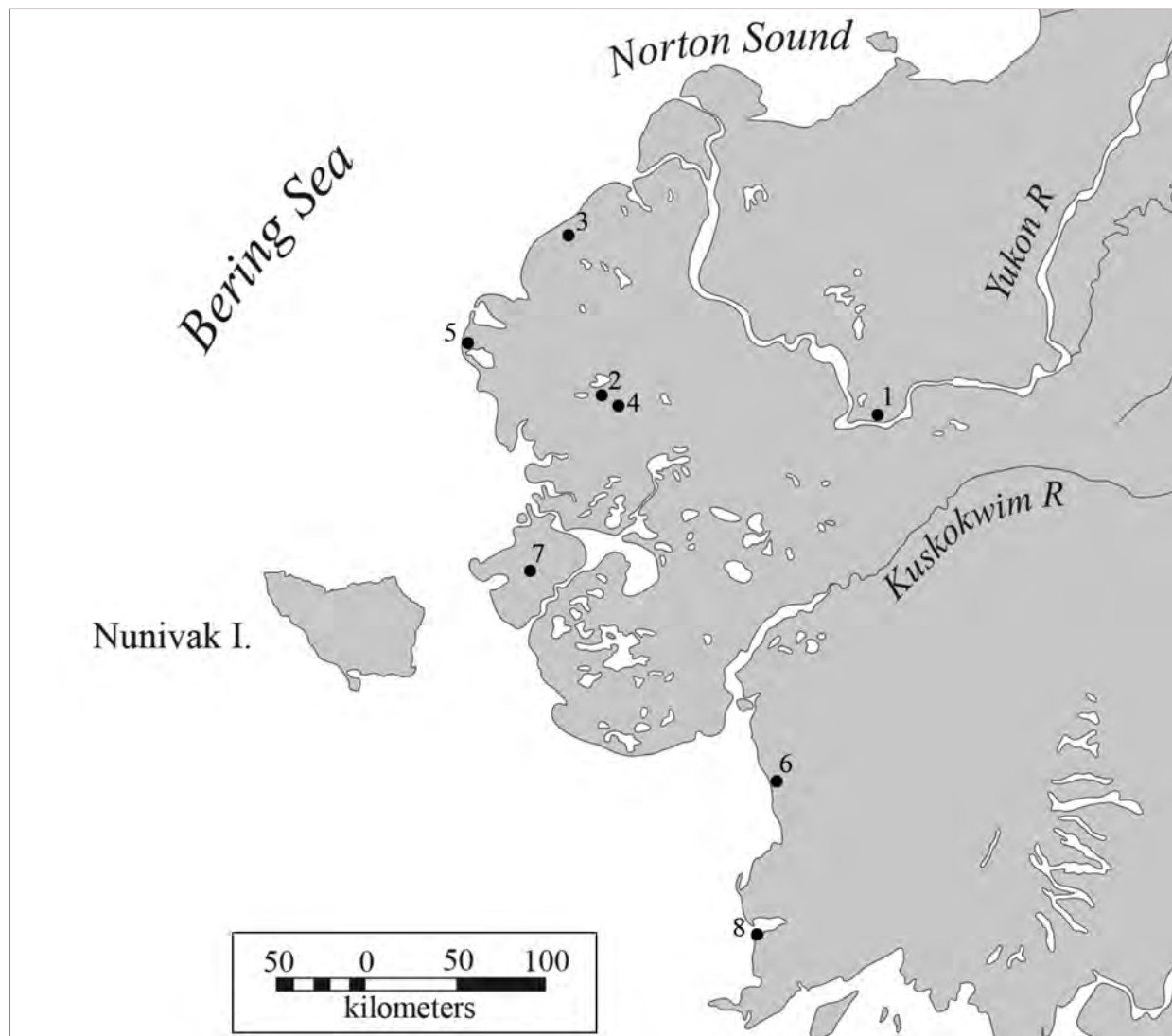


Figure 2. Reported locations of the legendary “eye-poking incident.” Keyed to Table 1.

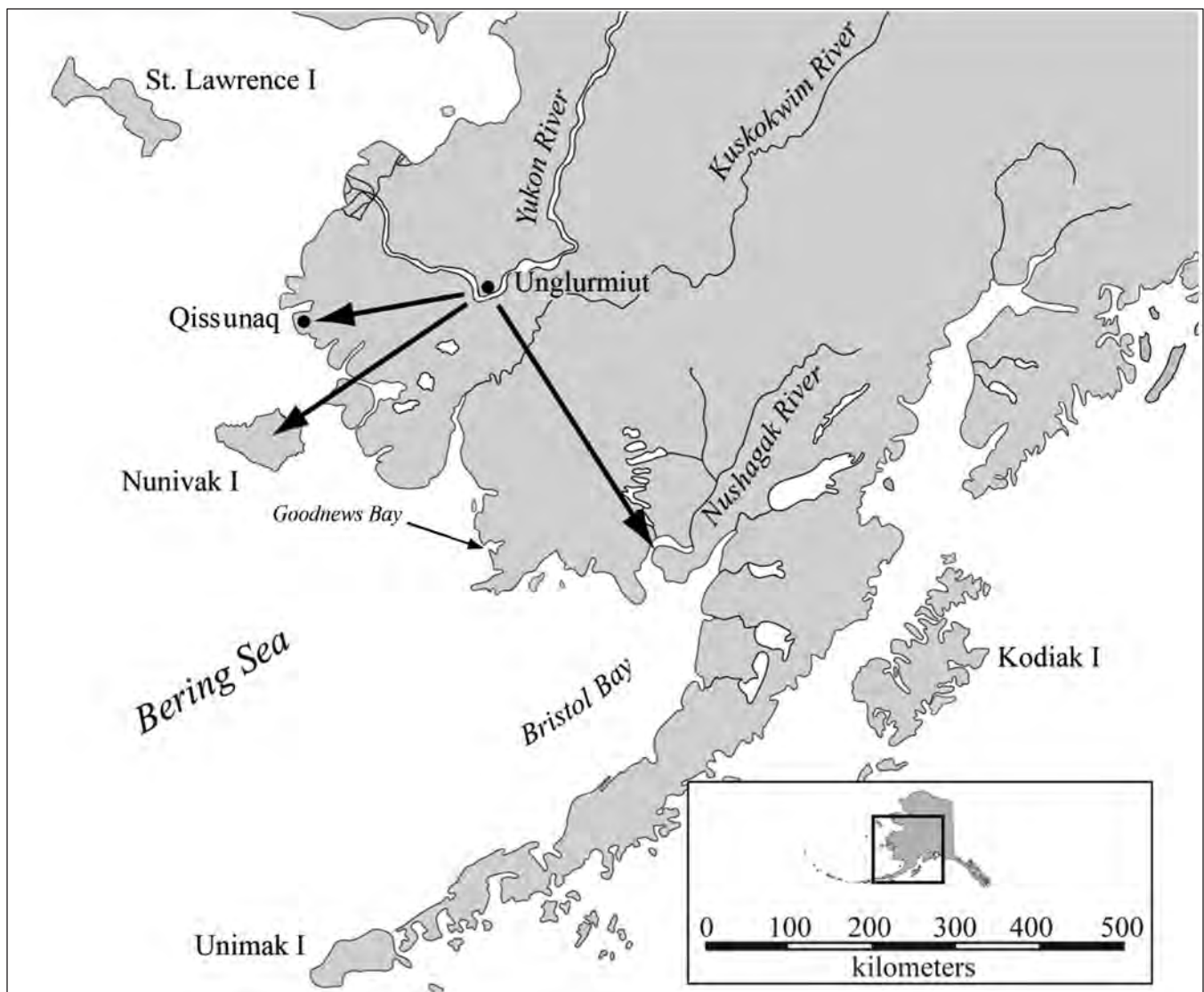


Figure 3. Yup'ik migration routes based on the account of Edward Nelson (1899).

experienced warriors, but had greatly reduced their numbers. Whereas once they had been dreadful, now they were persecuted and found refuge with Kolmakov. It would be difficult to determine their original homeland (VanStone 1973:53).

The “Kolmakov” referred to here was Fedor Kolmakov, who founded Aleksandrovskii Redoubt at the mouth of Nushagak River in 1819 (Black 2004:194; Dumond and VanStone 1995:4; VanStone 1973:8–10). He was apparently the first person to record the famous story of the eye-poking incident and the hostilities that ensued. Kolmakov’s account (Khlebnikov 1994:90) is silent about where the event occurred but indicates the combatants were “Aglekhmut” and “Kuskokvimtsy” (Kuskokwim Eskimos).

The next important Russian account concerning the Aglurmiut is that of Ivan Vasilev, in 1829 (VanStone 1988). He identified them as the “Agolegmiut,” stating that they originated in the Kuskokwim River area and took their name from their principal village, “Agolegma,” the location of which he was unable to determine. Based primarily on Vasilev’s account, later authors have described “Agolegma” as a “structure... [the group was] living in at the time of the siege” (Wrangell 1980:64) and as “a certain settlement or fortified spot” (Zagoskin 1967:210). Importantly, neither of those descriptions is supported by first-person observations, but both of them clearly imply a warfare association with the site. This underscores Vasilev’s report that hostilities with other Kuskokwim River area

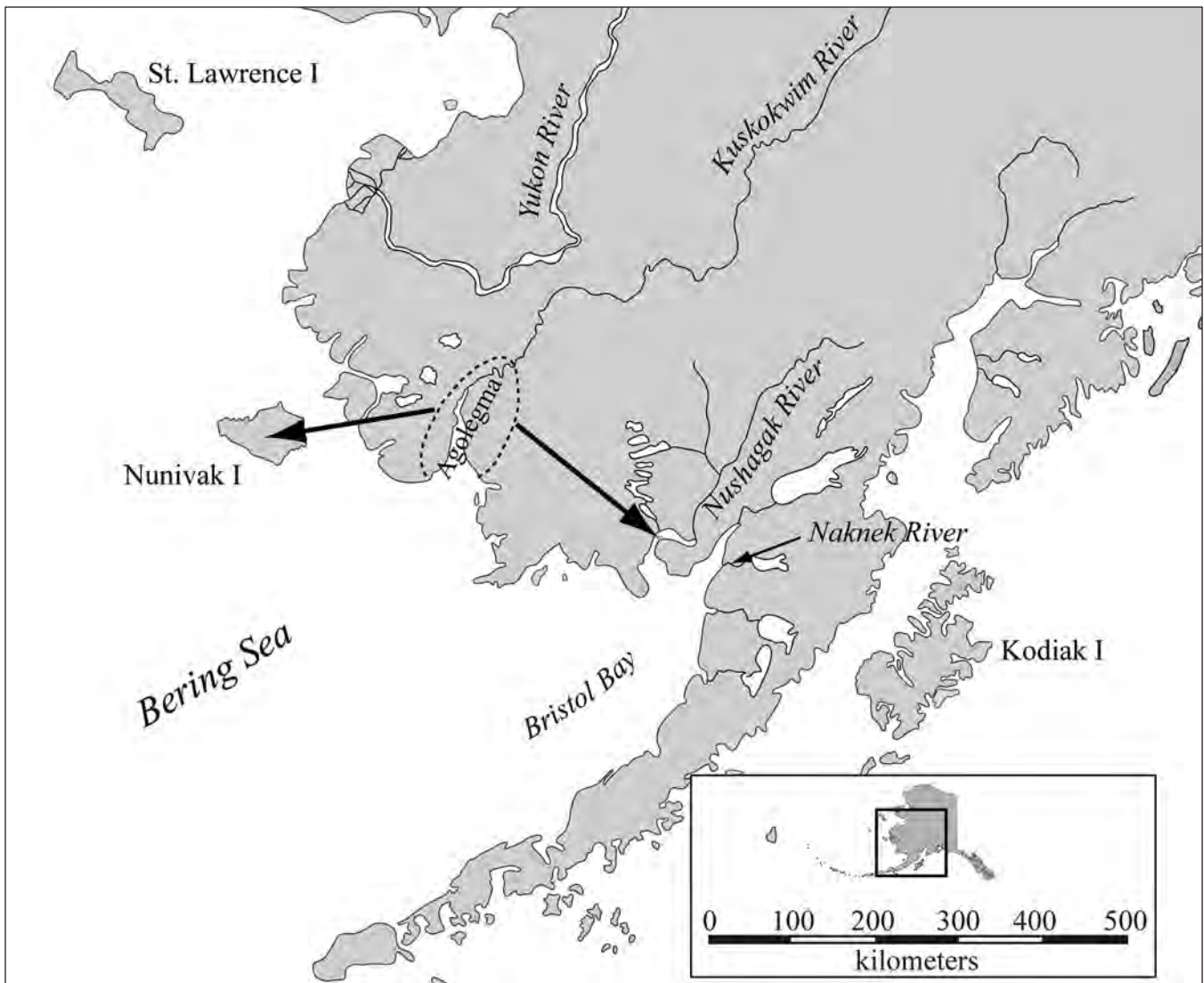


Figure 4. Aglurmiut migration routes based on the 1829 account of Ivan Vasilev (VanStone 1988). Dashed line denotes approximate area in which Vasilev believed the settlement of “Agolegma” was located.

Yup’ik groups drove these people from their homeland, after which they reportedly migrated to Nunivak Island (Zagoskin 1967:210) and the mouth of Nushagak River (Fig. 4) (see also Wrangell 1980:61–65).

The only other published account about the Aglurmiut migration that offers details not yet discussed is that of John Kilbuck (Fienup-Riordan 1988), and they are worth noting here. First, after naming three different “tribes” in the Kuskokwim district, Kilbuck stated:

there is some doubt about a fourth tribe. This fourth tribe are spoken of by the Kuskokwim people as the “Warrior people.” As to their origin and whether they are...only a clan belonging to the Kuskokwim Eskimo, is hard to determine, ow-

ing to the absence of direct data (Fienup-Riordan 1988:31–32; see also VanStone 1967:118–119).

In addition to noting that his use of the term ‘tribe’ was nontechnical, Fienup-Riordan (1988:472ⁿ92) concluded the “Warrior people, [Kilbuck’s] fourth tribe, were probably the Aglurmiut.” I concur with that conclusion.

The second noteworthy detail is Kilbuck’s claim that the “[Warrior people] seemed to make it their business to engage in war, and the Kuskokwim Eskimo their special object of enmity” (Fienup-Riordan 1988:32). He went on to say that the last battle between these two antagonists “occurred at the mouth of the Kuskokwim, a few miles below [Quinhagak]” (Fienup-Riordan 1988:33). Kilbuck also reported that the Warrior people “came from some-

where between the mouths of the Kuskokwim and Yukon Rivers. *It seems that the warriors either were inhabitants of only one village or of two lying close together*" (Fienup-Riordan 1988:43; emphasis added).

Finally, an odd twist to the Aglurmiut story was added by Frank Waskey ([1950] 2012:49n8), who did not mention anything about a migration in connection with this group and also stated that its members insisted they were "Aleut." Waskey was no doubt talking about essentially *modern* Native people, the great majority of whom habitually refer to themselves as Aleut—whether their ancestors were Alutiiq/Sugpiaq or Central Yup'ik speakers. In other words, the people Waskey was referring to were not the Aleut of the Aleutian Islands.⁸

WHERE DOES THIS LEAVE US?

The majority of accounts just discussed contend that a Yup'ik Eskimo group from the Kuskokwim River area was driven westward to Nunivak Island and southward to Bristol Bay as a result of warfare with other Yup'ik groups. The migrants are consistently identified as the Aglurmiut—except by Kilbuck, who designated them the "Warrior people." Their original homeland is usually reported as being somewhere in the Kuskokwim River vicinity, with the precise location indeterminate.⁹ Collectively, the accounts imply historic Yup'ik populations in the Bristol Bay/Nushagak region were derived from or dominated by Kuskokwim area migrants—a point reinforced by the fact that coastal Yup'ik residents of that region were identified as Aglurmiut in the earliest Russian accounts.

My opinions regarding the migration begin on the language front, with comments on Yup'ik linguist Steven Jacobson's (1998:xii–xxii) "Aglurmiut hypothesis"—which proposes (1) that the Egegik, Nunivak Island, and Hooper Bay–Chevak dialects constitute a distinct subgroup within Central Alaskan Yup'ik (see also Woodbury 1984a:52–53); and (2) that Nelson's "Migration Story" explains the dialectal differences evident between them today. Jacobson has produced a lot of impressive work in his career and his 1998 study is of particular interest, due mainly to its comparative framework. But the Aglurmiut hypothesis contained therein rests on both an optimistic assumption that Nelson's Yup'ik migration account is factually correct and an interpretation of linguistic evidence that relevant data from other disciplines do not support. The weakness of his

hypothesis is suggested by evaluating one of its most essential components, the supposed migration of Aglurmiut to Nunivak Island.

Based on his own analysis of the available linguistic data—mainly a vocabulary list compiled by Khromchenko (1824) in 1822—Jacobson (1998:xvi) concluded that "in 1824 Nunivak had not yet been occupied by the Aglurmiut." But, had the Aglurmiut migration occurred *after* that date (as Jacobson clearly suggested) the event would no doubt be solidly documented in the literature, especially in records of the Russian-American Company. Thus, it would surely have been known to later Russian explorers and—as one example—in 1843 Lavrentiy Zagoskin (1967:210–211) would not have dismissively characterized the report of an Aglurmiut migration to Nunivak as a "pure guess, or a legend." A post-1820s migration of outsiders to the island would probably be memorialized in local cultural history, documentation of which includes more than 300 oral history recordings with Nunivak elders between 1975 and 1995. But the only such event indicated in Nunivak traditions involves exploitation of the island's indigenous caribou herd by other Native hunters (predominantly Inupiat from Seward Peninsula) in the second half of the nineteenth century (Pratt 2001). The early ethnographic and genealogical work of Margaret Lantis (1946, 1960) also did not produce evidence of an Aglurmiut presence on the island.

Perhaps indicative of their own discomfort with his hypothesis, fellow linguists Michael Krauss and Jeffrey Leer suggested an alternative, "coastal dialect chain" explanation to Jacobson to account for the similarities and differences between the Egegik, Nunivak Island, and Hooper Bay–Chevak dialects of Central Yup'ik (Jacobson 1998:xvi; see also Woodbury 1984a:53–55). Jacobson further mentioned that Krauss:

has suggested that the various (and varying) traditional accounts of the Aglurmiut migrations, rather than reflecting population movements as such, may in fact have been an ingenious way in which Yup'iks could account for recognized similarities in speech between the geographically far separated Egegik and Nunivak regions in particular, also sometimes involving similarities with Hooper Bay–Chevak, the upper Kuskokwim and/or up-river Yukon as well (Jacobson 1998:xix).¹⁰

Both alternative explanations are more feasible than Jacobson's Aglurmiut hypothesis, but before linguists can

explain the Nunivak dialect's actual position relative to other Yup'ik dialects they will have to interpret the results of Jacobson's 1998 study in comparison with other historical materials, and also do more focused work with the Nunivak dialect itself, which is recognized as the most divergent in the Central Yup'ik language (e.g., Jacobson 1998:xix, 2003:vii–viii; see also Hammerich 1953, 1958; Nelson 1899:25; Pratt 2009a:132–138). Most significant for this study is to better understand the relationship between the Nunivak dialect and the so-called “Aglurmiut dialect.” Now restricted to Egegik (Jacobson 2012:45–46, 942), the Aglurmiut dialect is the least studied of all Yup'ik dialects. According to Woodbury (1984a:52–53), who cites Miyaoka (1974:78), evidence from the nineteenth century supports the existence of an Aglurmiut dialect “with important similarities to that of Nunivak, but also with some differences” (cf. Jacobson 1998:xii–xix).¹¹

A final concern flows from the fact that efforts by linguists to trace connections between or reconstruct past, dying, or otherwise poorly known dialects are often, of necessity, reliant on vocabulary lists compiled by early explorers and visitors to the regions in question. From my perspective as an ethnohistorian, it is troubling that the factors affecting the collection of such vocabularies—for example, the amount of time the collector spent with the Native population, the collector's language skills, and use and identification of interpreters—are seldom discussed in assessing their reliability. Linguists may actually take such factors into account when working with early vocabularies, but failing to discuss their related findings implies that early collectors possessed the linguistic competence necessary to accurately “hear” and transcribe Native words for the objects, animals, et cetera that typically characterize historical vocabulary lists. It also suggests an absence of cross-cultural communication problems—which is highly unlikely—and ignores the roles intermediaries, such as interpreters, may have played in the process of collecting vocabularies. Realistically, all such undertakings must have encountered impediments of one kind or another that could have affected the accuracy of the language data collected (e.g., Pratt 2008; Zagoskin 1967:168, 242–243, 295–296n66).¹² Factors of this nature (rather than the rumored Aglurmiut migration to Nunivak) would provide a more reasonable explanation for the circumstance described below.

The oldest source for Aglurmiut and the only early source for Nunivak, Khromchenko 1824, presents

Nunivak as being closer to GCY [General Central Yup'ik] than NUN [the Nunivak dialect] is today, suggesting that perhaps Aglurmiut influence came to Nunivak after that time (Jacobson 2012:942; see also Jacobson 1998:177–179).

The pro-Aglurmiut migration position expressed in this quote is unconvincing not only for the suggested post-1824 timing of that event. Logically, the purported greater similarity in language prior to that date should mean that rates of contact between the Nunivak people and those on the adjacent mainland were higher *before* 1824 than they were afterwards. That may be theoretically possible, but the available documentary data suggest the opposite (Pratt 2009a:252–256). Scholars also generally accept that activities tied to the Euroamerican fur trade tended to increase contacts between distant Native groups—and, comparatively speaking, the Nunivak people were “distant” from all other Yupiit. Their closest neighbors were the Nelson Islanders, the Yup'ik group with whom they traditionally (and likely prehistorically) must also have had the greatest frequency of contact. This might lead one to expect that the Nunivak dialect would be most similar to the Yup'ik dialect spoken on Nelson Island; however, that is not the case (Jacobson 2012:35–46).

For all of the reasons stated above, I contend that Jacobson's Aglurmiut hypothesis is not supported with respect to its Nunivak component.

Other, non-language-based doubts about the veracity of the supposed Aglurmiut migration to Nunivak were expressed in 1843 by Zagoskin, who raised questions that remain relevant today. He stated:

The name Aglegmyut was believed by the pilot Vasilev to refer to a certain settlement or fortified spot on the Kuskokwim called Agolegma whose inhabitants were driven out by civil disputes and were pushed farther to the south onto Nunivok Island. This is a pure guess, or a legend. Why would the inhabitants of Nunivok not retain the name Aglegmyut instead of calling themselves “Those who live in a little land,” or, more properly, “little estate,” according to the real meaning of *nunivok*. Moreover, Pilot Vasilev traveled along the Kuskokwim but does not locate the site of Agolegma, which should have been preserved in native legends as the place that gave its name to the tribe. At all events we can be quite certain only of this: since the Russians first became acquainted with this country in the 1780s, all of the tribes we have named have been in the localities they occupy today (Zagoskin 1967:210–211).¹³

To the author's knowledge, the only other published historical indication of a connection between Nunivak and the people who apparently moved to Bristol Bay is Khromchenko's 1822 observation that he saw houses at Cape Corwin, on Nunivak's east coast, that were "exactly like those of the Aglegmiut" (VanStone 1973:62–63). But this suggested connection is very tenuous. If Khromchenko's travels in the region had been more extensive, he would have seen that house styles among the Central Yup'ik were remarkably similar everywhere.¹⁴

Vasilev's account of the Aglurmiut migration is also problematic relative to the Bristol Bay and Nushagak areas. For one thing, he suggests most of coastal Bristol Bay and the Nushagak River mouth area were either unpopulated or only lightly populated at the time of the migration. But this does not mesh with ethnohistorical and archaeological evidence related to the region's occupational history. Additionally, since the Aglurmiut migrants were a remnant population (once "dreadful" but by 1822 "persecuted" to the point of needing Russian protection [VanStone 1973:53]), it is improbable that they could have simply displaced existing Native occupants (cf. Wrangell 1970:17).

Reports that the Aglurmiut were driven out of the Kuskokwim area and found refuge under the cloak of the Russians at Aleksandrovskii Redoubt are similarly untenable—*unless* the Aglurmiut were actually a small, local population. An insubstantial emigrant group that truly feared attacks from other Yupiit, or was otherwise isolated in its new home, might reasonably have sought alliances with the Russians at Aleksandrovskii Redoubt. Extensive Aglurmiut involvement with the Russian-American Company is well known (e.g., Dumond and VanStone 1995:4–5). But the few Russians in the country during the Russian-America period could not have protected *any* Native population of a *regional* scale from other Native groups determined to do them harm.¹⁵ The Russians' ability to protect the remnant population of a single village, however, may have been an entirely different matter.

DEMOGRAPHIC AND TERRITORIAL CONSIDERATIONS

As previously detailed by James VanStone (1967:109–114), the literature is inconsistent with respect to the territorial extent of the Aglurmiut and the group's population during the period from ca. 1818 to 1870. This problem is illustrated below by quotes from historical accounts.

Regarding the indigenous population, Oswalt noted that:

Around the time Alexandrov Redoubt was founded there were only sixty Aglegmiut men, but the total population had increased in 1832 to five hundred [Aglegmiut], of whom one hundred fifty were men. This marked increase in the adult male population over such a short period of time probably represents an ingathering of the previously dispersed Aglegmiut population (Oswalt 1967:4–5; see also Dumond and VanStone 1995:5; Fienup-Riordan 1984:93).

I concur with Oswalt that the reported 150% increase in the number of Aglegmiut men in a span of just thirteen years (i.e., between 1819 and 1832) cannot be explained in terms of normal population trends. For reasons presented later in the text, however, I disagree with his explanation that the increase probably resulted from "previously dispersed" members of that group reuniting. That something strange was at play is emphasized by an even earlier report on the group's population: an 1825 tally of "Aglegmiuts at Nushagak, Aleksandrovsk district" (Khlebnikov 1994:19) suggests the number of adult males rose 200% in only six years (from sixty in 1819 to 179 in 1825)!

On a related front, VanStone remarked that:

Khromchenko believed the Nushagak area to be heavily populated and he was right. At the time of his visit [May 1822], there were approximately 500 people [Aglurmiut] living in villages along the shores of Nushagak Bay and perhaps another 700 [Kiatagmiut] in settlements on the river, its major tributaries, and in the large lakes to the west (VanStone 1973:28–29; see also Wrangell 1980:61).

VanStone's comment makes it clear that efforts to decipher the Aglurmiut puzzle must include consideration of at least one other Eskimo population, the so-called Kiatagmiut ("upriver" or "inland" people). According to VanStone:

It seems certain that the mixture of population in the Nushagak area began in the prehistoric period, but the newly established Aleksandrovskii Redoubt served as an additional attraction for peoples from the north and south. Khromchenko was apparently the first to make a distinction between the coastal dwelling Aglegmiut and the Kiatagmiut who, at the time of contact, inhabited the banks of the Nushagak and Wood rivers and the area to the west possibly as far as and including the Wood River Lakes and Tikchik Lakes. The Kiatagmiut also occupied the upper Kvichak

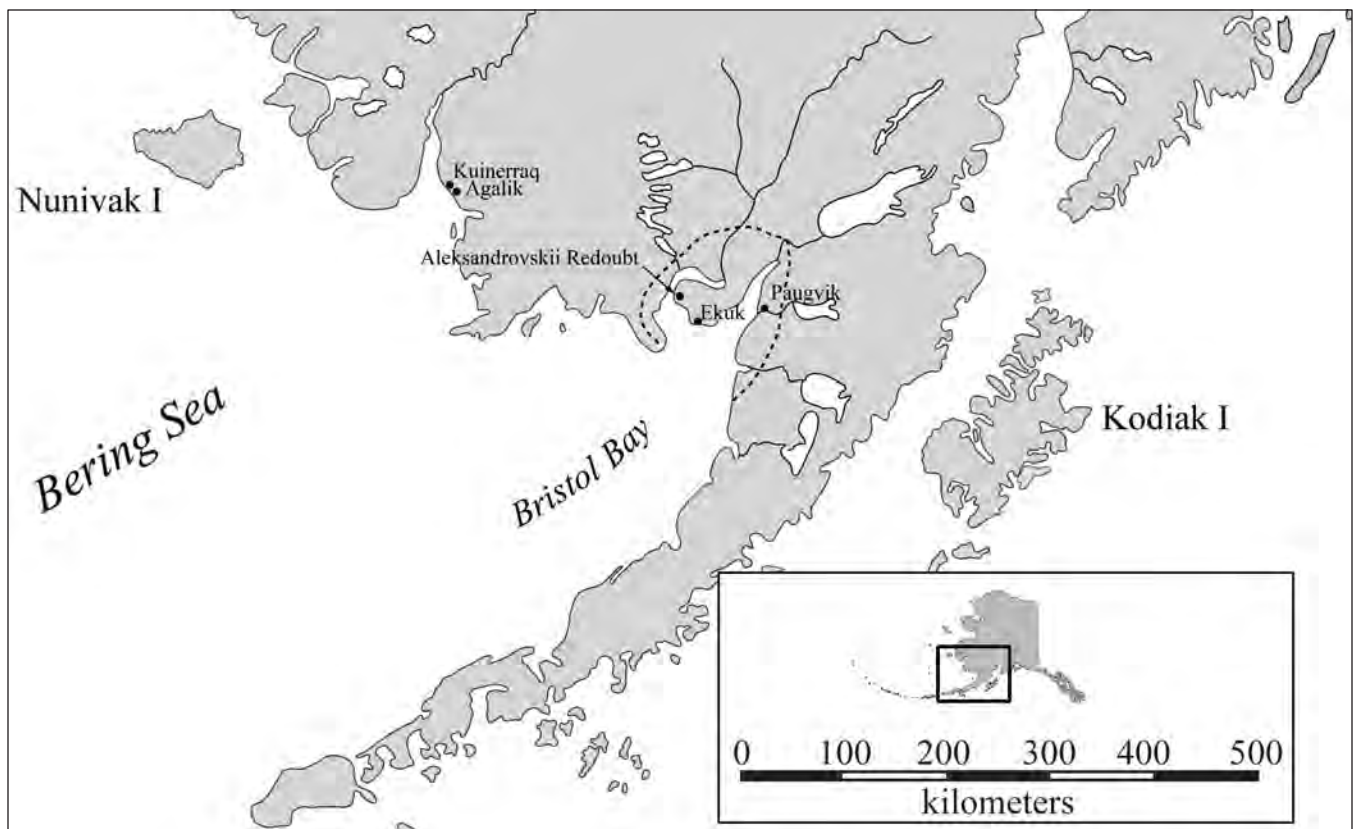


Figure 5. Key locations associated with the Aglurmiut migration. Dashed line denotes approximate limits of Aglurmiut territory circa 1840.

River and probably the lower end of Iliamna Lake (VanStone 1973:31).

He further noted that Khromchenko referred:

to the people in the Nushagak Bay area as “Aglegmiut,” presumably the Glakmiut of Korsakovski. The Nushagak River people are spoken of as being distinct from those Eskimos living around the shores of the bay and are called “Kiatagmiut” (VanStone 1967:109–110; see also Dall 1877:19; Holmberg 1985:6).¹⁶

Thus, whereas the Aglurmiut were recognized as inhabiting coastal areas around Bristol Bay and Nushagak Bay, as well as the mouth of Nushagak River (Fig. 5), Kiatagmiut were said to inhabit the adjacent inland or upriver sections of those areas. Complicating the matter further, the term Kiatagmiut also applied to Yup’ik people of the Kuskokwim River area from Bethel upriver to about Kolmakovskiy Redoubt (Oswalt 1990:12–14). “By the time of Russian arrival the Kiatagmiut not only lived inland along the Kuskokwim, but many had migrated as far as the Nushagak River drainage” (Oswalt 1990:14).

In Oswalt’s estimation,

the 1829 travel journal of the Russian explorer Vasilev indicates that the Kiatagmiut subgroup then found in the Nushagak drainages had the same name as those living from Bethel to Kolmakovskiy along the Kuskokwim (VanStone 1988). Thus the Upriver Eskimos of the Kuskokwim and the Nushagak Eskimos were once one people” (Oswalt 1990:227n3).

But Oswalt’s finding overlooks the root nature of the name “Kiatagmiut,” which any Yup’ik group in southwest Alaska could have appropriately used as a term of reference to anyone living upriver or inland from it. In fact, rather than construing the name as evidence that the two groups in question were once one, “kiatagmiut” is more easily explained, like “nunamiut” (Burch 1976), as a generic, demonstrative/directional term (see Jacobson 2012:963–972) that happens to have been used as a group designation for specific Yup’ik populations in both the Kuskokwim and Nushagak drainages.

That said, the position Oswalt had taken on the matter was supported by Ferdinand Wrangell’s (1980:63) reference to the “Agolegmiut” as “the Kuskokwim, whom Mr.

Vasil'ev made known to us" and the following supplemental remarks:

The Kuskokvim tribe is found only in the region between the rivers Nushagak, Ilgaiak [upper Nushagak (VanStone 1967:12, 52)], Khulitna [Holitna] and Kuskokvim as far as the sea coast. Most of the tribe lives on the Kuskokvim, west of its junction with the small river Anigak [Aniak]. Mr. Vasil'ev thinks they number some 7,000 souls, including both sexes and all ages [cf. Zagoskin 1967:308*n*]. They are also called the Kuskukchvak-miuts of Kushkukchvak, which has the same meaning as Kuskokvim.

The Agolegmiuts and Kiiataigmiuts...are indistinguishable from the Kuskokvim and the latter are considered to belong to the same tribe. But the Agolegmiuts and the Kuskokvim are enemies, since the former were driven from their homes on the banks of the Kuskokvim. They received their present name from a structure called the Agolegma, where they were living at the time of the siege. They finally moved away to Nunivok Island and another island at the mouth of the Nushagak, where they settled under the protection of the commander of the Aleksandrovskii Redoubt and were safe-guarded from the attacks of the Kuskokvim. They still mourn their old homeland in their songs.

For their part, the Agolegmiuts expelled the natives living at the mouth of the Nushagak, and these wandered as far as the eastern half of the Aliaska Peninsula and are now known as the Severnovtzy (Northerners) and Ugashentzy (Wrangell 1980:64; see also Dumond and VanStone 1995:1–5).¹⁷

Significantly, around 1830, Vasilii I. Kashevarov (n.d.) reported an indigenous ("Uglekhmut" [Aglurmiut]) population of up to 1,555 "in the jurisdiction" of Aleksandrovskii Redoubt, which he described as extending from the Nushagak area northward to Kuskokvim Bay. The nine Aglurmiut settlements he identified as lying within this redoubt's jurisdiction included Tugiakskoe (Togiak), Kviungagmiukskoe (Quinhagak), and Aglegomiukskoe (*Agalik*). The Aglurmiut information reported by Kashevarov is especially noteworthy when compared with that provided by Khromchenko (VanStone 1973:28–29) about eight years earlier. Specifically, Kashevarov's estimate of the group's population is three times higher than that offered by Khromchenko. Whereas Khromchenko restricted Aglurmiut territory to "villages along the shores of Nushagak Bay" (VanStone 1973:29), in Kashevarov's report it

extended northward along the coast to at least the middle of Kuskokvim Bay.

Kashevarov's report is also important because by specifically identifying the settlements said to comprise the Aglurmiut ca. 1830, it clearly reveals what numerous other historical accounts about this group only imply: i.e., that some observers perceived the Aglurmiut to be a *regional* Yup'ik population. This contrasts sharply with the earliest Russian accounts about the Aglurmiut, which portray the group as the surviving residents of a single village. The geographical extension of the Aglurmiut group name reinforces the implication that emigrants from a single village populated or assumed dominion over the entire coastline from the Kuskokvim River mouth southeast to the Nushagak Bay area. But the following comment by Zagoskin offers another possible explanation for the historically broad application of that group name:

In general the natives of Norton Sound call their relatives who live to the south "Aglegmyut" and "Kadyak." Actually, "Akhkugmiut" means "one who lives on the warm side" (Zagoskin 1967:291*n*40; see also Holmberg 1985:6).

It is tempting to conclude, but by no means certain, that Zagoskin was suggesting the terms "Aglegmyut" and "Akhkugmiut" were synonyms, though they are, in fact, two completely different words in Yup'ik. However, even if that was not the intent, his comment indicates some Yupiit used the Aglurmiut designation as an inclusive, general term of reference for Yupiit living to the south of them. Thus, Russian observers may have identified the people of certain areas as Aglurmiut on the basis of information received from nonresident Yupiit, who might simply have been referring to those other people in geographically relational terms. This scenario could explain some of the inconsistency surrounding accounts about the Aglurmiut in Russian sources.

DISCUSSION AND CONCLUSIONS

Although historical accounts frequently suggest the opposite, rumors and guesses were the basis for knowledge about many Alaska Native groups and their territories in the Russian-America period and later. This certainly was the case with regard to the Aglurmiut migration, the reported focal site of which (i.e., "Agolegma") has not previously been determined. The research on which this paper

is founded, however, convinces me that the “Agolegma” site Vasilev reported but never found is *Agalik* (a former Yup’ik village just south of modern Quinhagak in the vicinity designated “Arolik” on modern maps). Further, Vasilev was correct in suggesting that the *Aglurmiut* derived their name from this settlement (see also Jacobson 1998:xvn27). More than a century after Vasilev’s report, Clark Garber (n.d.) identified this same site as “Ahlahlich” and described it as “a warrior village [established by] a group of young warriors” from Quinhagak.¹⁸ In Garber’s account, the famous eye-poking incident occurred at Quinhagak and led to the “chief” of that village killing a man from Tununak (*Tununeq*) on Nelson Island. Thereafter repeated battles took place between the Tununak and Quinhagak people. The account goes on to say:

Slowly but surely the Quinhagak people were being annihilated. In order to save themselves they must change their location, they must move away from their homes and establish a village in a secluded place. The women and children with all the household goods were packed off to a secret hiding place on one of the small streams that feed Iliamna Lake. Here they established themselves and built new igloos (Garber n.d.:2).

It was at this point that young warriors from Quinhagak reportedly also established *Agalik*, where they lived “for many years” while constantly warring with their enemies. Eventually, a large war party from Tununak attacked *Agalik* and overwhelmed its defenders.

The few Ahlahlich survivors finally joined their people near Lake Iliamna where their terrible story found ready ears. Here they lived in constant dread least [*sic*] their enemies find them and destroy their tribe completely (Garber n.d.:3).

Although the homeland of the attackers differs, Garber’s account supports Kilbuck’s assertion that the Warrior people’s “last battle” occurred near Quinhagak [*Kuinerraq*] (Fienup-Riordan 1988:33)—and also Kilbuck’s conclusion that the Warrior people either came from a single village or two adjacent villages (see Fig. 5). Finally, a Native oral history account provided by Quinhagak elder Charlie Pleasant (1986:47–49) documents a battle at *Agalik* that left most of its residents dead and the village burned;¹⁹ Pleasant further reported that the site was also called *anguyiit nunallrat* (“warrior’s old village”). For all of these reasons, I believe Kilbuck’s “Warrior people” were the people of *Agalik*.

This village’s name merits special attention. Its pronunciation by Pleasant (1986) led staff of the Alaska Native Language Center (ANLC), University of Alaska Fairbanks, to produce the spelling used herein (i.e., *Agalik*) and the translation “two hanging things/a hanging thing.” Later, another ANLC linguist translated *agluq*—the apparent base of the Russian transliteration of the site’s Native name (i.e., “Agolegma”)—as “arch, arched thing” (Jacobson 1998:xvn27) and even more recently as “ridgepole” (Jacobson 2012:71, 1179). In Donald Orth’s (1967:87) entries for “Arolik” and “Arolik River,” however, the Native name for the latter is reported as “Aalalik, meaning ashes” and said to refer to the “ashes of a burnt village at the mouth of [the Arolik River’s] north fork.”²⁰ “Aalalik,” the name reported for the river along which the site is located, is an obvious match with “Ahlahlich,” the name Garber reported for the site. This reflects a common aspect of traditional Yup’ik Eskimo place-naming practices: i.e., “important settlements and adjacent watercourses often share the same names” (Pratt 2009b:151). Given the cultural and historical context, therefore, a more accurate spelling of the site name may be *Aralleq*, a word Jacobson (2012:132) translates as “site of a fire” (from *araq*, “ash” [Jacobson 2012:1026]). To clarify, I believe “Arolik” is a mistranscription of *Aralleq*.

Having now explained the Agolegma/*Agalik*/Arolik correlation, several related points must be made. First, Kashevarov’s report of an *Aglurmiut* village named “Aglegomiukskoe” around 1830 raises the possibility that *Agalik* was not completely abandoned following the devastating battle that is said to have ended with the village being burned. Alternatively, the site he referenced may have been a successor village established nearby that took the name of the original settlement. This was fairly typical of traditional Yup’ik Eskimo settlement patterns, and the existence of an entirely different “Arolik” site at the modern mouth of Arolik River’s north fork is a fact. This is the site Nelson (1882:712) and Ivan Petroff (U.S. Census Office 1884:14) identified as “Aguliagamute,” and which later researchers have also mentioned (e.g., Hrdlička 1930:191 [no. 53, “Arolik”]; U.S. Census Office 1893:6). Population estimates for the “Aguliagamute/Arolik” site are purposefully omitted from this discussion to avoid any suggestion that they might apply to the original settlement of *Agalik*, an error that has occurred previously (i.e., Fienup-Riordan 1988:497n12).

Second, an archaeological site excavation in the Quinhagak area of Kuskokwim Bay (which began in

2009 and was still in progress in 2013) calls to mind Don Dumond's (1998:59–60) criticism that—in contrast to the approach exemplified by VanStone in the Nushagak River drainage—archaeologists today frequently do not draw on “all relevant disciplines or subdisciplines” to inform their research. The lack of effort most archaeologists devote to place names research is a common example of this problem, and it has been repeated on the Quinhagak project. That is, project archaeologists identify the site being excavated by the generic term “*nunalleg*”²¹ (implying that is its Yup'ik name), and characterize it as entirely prehistoric in age (e.g., Britton et al. 2013; Dunham 2013). Had they researched historical and anthropological sources for a site name, however, they might have discovered that they have been excavating the original settlement of *Agalik*, the remarkably rich and complex history of which poses a number of interpretive problems.

Moving on, if Garber's account is assumed to be historically accurate with regard to what became of the *Agalik* survivors following the attack on their village, it is logical to conclude that the first area of Nushagak Bay they occupied was at or near Paugvik (Dumond 1998:65–71; Dumond and VanStone 1995:4–7; Vanstone 1988:22, 68n30), at the mouth of Naknek River. Since the “Warrior people” also reportedly occupied the village of Ekuk (VanStone 1967:118; 1972:6; see also Fienup-Riordan 1988:496n11)—near the mouth of Nushagak River and very close to Aleksandrovskii Redoubt—this may be another place where the *Agalik* migrants initially settled (see also Dumond and Vanstone 1995:5), or perhaps relocated to after the Russians established Aleksandrovskii Redoubt. As previously suggested by Dumond (1986:61), and despite the general thrust of some historical accounts, the movement of a comparatively small group of people into an already inhabited region need not have been accompanied by great turmoil and disruption to the existing social order.

Also worth noting are inconsistencies between the story of the *Agalik* battle recorded by Garber (n.d.) in the late 1920s or early 1930s from an unnamed source and those concerning the same event as described in oral history accounts provided in 1986 and 2009 by elders from Quinhagak. Garber's account indicates the battle was the culmination of hostilities precipitated by the famous eye-poking incident, which is said to have taken place at Quinhagak, but that incident is not mentioned in accounts of Quinhagak elders. Additionally, Garber report-

ed the warriors who attacked *Agalik* came from the Nelson Island area; however, the Quinhagak elder accounts link the attackers to a Kuskokwim-area village named *Pengurpagmiut*. The discrepancies in these accounts of the same battle highlight the need to subject Yup'ik warfare stories to objective, critical analysis.

In any case, the preceding discussion raises the question of when the *Agalik* people moved into the Nushagak area. There is no definitive answer to this query, but the historical literature clearly indicates the event predated Korsakovskiy's 1818 expedition and the 1819 Russian establishment of Aleksandrovskii Redoubt (VanStone 1973:31). Archaeologists with the “Quinhagak project” reportedly discovered the remains of burned dwellings at the site and concluded they were destroyed around AD 1650 (Fienup-Riordan 2013:xxxiv). But the accuracy of that finding cannot yet be objectively assessed. Even if the reported archaeological evidence is ignored, however, the event that caused the migration must have occurred long enough before 1820 for its finer details to have grown “fuzzy” in regional oral history—otherwise it arguably would be better documented in Russian accounts. This consideration leads me to conclude that the Aglurmiut migration probably dates to about AD 1750 (i.e., at least three generations before its first mention in the literature), possibly even earlier. In taking this position I am also acknowledging Zagoskin's summary statement regarding Vasliev's account of the migration: “At all events we can be quite certain only of this: since the Russians first became acquainted with this country in the 1780s, all of the tribes we have named have been in the localities they occupy today” (Zagoskin 1967:211).

Expanding on this line of reasoning, I conclude that the term Aglurmiut derives from the Yup'ik name for the people of *Agalik*—that is, the Agaligmiut (Fienup-Riordan 1988:497n12). Thus, the Aglurmiut were in fact a *local group*²²—not a regional group of equivalent scale to the Kuigpagmiut (Yup'ik residents of the Yukon River), Kusquqvagmiut (Yup'ik residents of the Kuskokwim River), or Cenarmiut (“coastal people” [Shinkwin and Pete 1984:97; see also Fienup-Riordan 1984:70–74, 93, 1988:472n92]). Like the name “Kiatagmiut” discussed above, Kuigpagmiut, Kusquqvagmiut, and Cenarmiut are clearly regional in scale. That is, they are general terms indicating the relative geographical placement of people across the region. In contrast, the designation “Aglurmiut” (in addition to variants suggested above) has consistently

been translated in ways that imply a more restricted, local group base: for example as “people of the ridgepole” (Fienup-Riordan 1984:93; VanStone 1984:241). The first report on the Aglurmiut supports this interpretation. In 1818, Korsakovskiy described the “Alegmiut” as a group comprised of people from a single settlement (similar to how he described the “Koingak Indians” [Quinhagak Eskimos]) (VanStone 1988:29–31, 46–47). Later Russian reports characterizing the Aglurmiut as a substantially larger, regional group were therefore not in accord with Korsakovskiy’s account.

My view that the Aglurmiut were actually a local group conflicts with the regional literature (e.g., VanStone 1967:109–112), which consistently presents them as a regional group comprised of Yup’ik-speaking peoples living along the coasts of Bristol Bay and the western Alaska Peninsula, whose movement into those areas presumably displaced pre-existing inhabitants. Scholars have essentially accepted the scenario presented in the regional literature without serious debate, thereby contributing to a distorted image of Yup’ik socioterritorial organization in this section of Southwest Alaska. This remark reflects my conviction that “the regional group concept has little or no functional value for describing [Yup’ik Eskimo] socioterritorial...organization” (Pratt 2009a:280)—which was in fact village-based (Pratt 2009a:258–269). In this case, the name of a specific Yup’ik local group (the “Aglurmiut”) has repeatedly been extended to encompass numerous other equivalent Yup’ik groups (e.g., the people of *Asvigyaq* [Osviak], *Turyuraq* [Togiak], *Tuqlia*, *Quluqaq* [Kulukak]), all of which were almost certainly viable entities when the Aglurmiut migration took place. Use of the regional group concept here has thus sustained a “standardization of error” like that described by Burch (1976) with regard to the Nunamiut of Northwest Alaska.

That the Aglurmiut became valued and motivated Russian partners immediately following the establishment of Aleksandrovskii Redoubt is evident in Russian documents of the time (e.g., Dumond and VanStone 1995:5–8). Speaking speculatively, the redoubt staff may have rapidly become so familiar with the Aglurmiut (i.e., the past residents of *Agalik*) that the compelling story of their migration spread throughout the Russian-American Company and eventually generated a default assumption that virtually *all* coast-dwelling Yup’ik peoples in the Bristol Bay region were members or descendants of this

same group. Such an error may have led to its standardization, to include acceptance of the Aglurmiut migration as a large-scale, regional affair. Unfortunately, the lack of descriptions of local Yup’ik groups in Russian accounts of the region extending from Kuskokwim Bay to Bristol Bay (e.g., VanStone 1988:12) only reinforces the notion that it was all Aglurmiut territory.

Acknowledging that reality often pales in comparison with legend, I want to close by emphatically expressing my agreement with historical accounts on the following points: An Aglurmiut migration *did* occur, it was induced by intergroup conflicts, and it resulted in Yup’ik people from Kuskokwim Bay moving into the Bristol Bay region. However, I contend that this migration involved people from a single local group, centered at the village of *Agalik*, and probably involved fewer than one hundred people. Thus, as suggested at the outset, my main disagreement with prior treatments of the Aglurmiut migration is a matter of scale.

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ENDNOTES

1. Ethnohistorical sources contain numerous variations of this group name, including Agolegmyut, Alegmiut, Aglyogmyut, Aglekhumut, Glakmiut, Uglekhumut, Ogulmut, and Aglimut.
2. In 1829, Ivan Vasilev reported seeing extensive human remains at the battle site, which was located along Nushagak River—by my estimation, evidently near its junction with modern Portage Creek. He said the battle occurred in 1816 (but offered no explanation for how the date was determined), identified the combatants as Alegmiuts and Kiatagmiuts, and claimed “as many as 200 Kiatagmiuts” had been killed (VanStone 1988:91).
3. The following quote is an example of such thinking: “Lay out the map of the world, and wherever you find populations unrestrained by the strong hand of

- government, there you will find perpetual feud, tribe against tribe, and family against family” (McLennan 1886:73).
4. As used herein, “warfare” refers to purposeful, hostile actions taken by one group of people against another group of people (see also Reedy-Maschner and Maschner 1999:704–705).
 5. The “eye-poking” story belongs to a category of Yup’ik tales known as *qulirat*, defined by Woodbury (1984b:13) as “traditional tales that have been passed on from generation to generation and which are said to have originated with remote ancestors, rather than with any specific, known storyteller of the present or the past.” He also noted that the antiquity of such stories “is borne out by the fact that many of them are very widespread” and some “are told by almost every Eskimo group” (Woodbury 1984b:14). Interestingly, Fienup-Riordan (1990:242n4) presents information suggesting that possible variants of the eye-poking story have also been used to explain population movements and/or the origin of war among certain Canadian and Greenlandic Inuit groups.
 6. In September 1882, German explorer Johan Jacobsen stopped at a village identified as “Ka-krome” that was either at or in the immediate vicinity of *Unglurmiut*. Jacobsen (1977:110) stated that “one finds here along the rocks on the banks and down at the water’s edge the remainders of houses for about four English miles.” In the summer of 1929, Aleš Hrdlička surveyed a portion of “Thirty-Two Kazyga Slough” but found no trace of the village. He concluded it was probably overgrown by dense brush and grass (Hrdlička 1943:71–72, 170–171).
 7. These people were not identified by a group name in Nelson’s (1899) monograph. In his Alaska journal, however, they were called the “Aglimuts” and said to “inhabit Kushunuk, Nunevak Island, and then on the southern side of the Kuskoquim estuary from above Good News Bay around the head of Bristol Bay. The northern shore of Alaska Peninsula is inhabited by emigrants from the south shore of same” (Nelson 1880:43).
 8. It should also be noted that Russian historical accounts frequently extended the name “Aleut” to include indigenous residents of the Alaska Peninsula, Kodiak Island, and Prince William Sound.
 9. A recent paper by Caroline Funk (2010:534) includes the unsupported statement that the Aglurmiut homeland was “in the Norton Sound area”—which is wholly inconsistent with all known oral and written historical accounts relevant to the question. The same is true of where she locates the Aglurmiut in the traditional regional landscape (Funk 2010:528, fig. 3).
 10. This sort of ingenuity likely accounts for versions of the well-known “Dog Husband” story that link the origins of the Nunivak people with people from Hooper Bay and Quinhagak (e.g., Lantis 1946:267–268; Williams 1986). In the widespread Dog Husband story (another example of *qulirat*) “A woman takes a dog for a mate and produces offspring that are variously progenitors of Indians, Whites, and some Yupik groups” (Sheppard 1998:158).
 11. The need for systematic work with Cup’ig (Nunivak dialect) language materials is further suggested by reports from local elders that residents of the island’s west coast spoke a *subdialect* of Cup’ig (Drozda 1997:102–105; Pratt 1990:82n9). Evidence for this reported subdialect (and possibly others [see Jacobson 1985:38n18]) might be found on numerous oral history interview tapes recorded with Nunivak elders between 1975 and 1995, among other sources.
 12. Consider the following remarks by Zagoskin: “to avoid future criticism I feel that it is my duty to explain that all the information I collected here from the Tlëgon-khotana [Holikachuk Athabaskan] natives, as well as from those I met later on, came to me through the following system: every answer to my questions was given to Vtornik [a Koyukon Athabaskan], who passed it on to Tatlek [another Koyukon Athabaskan], who told it to the Creole interpreter [Nikifor Talizhuk] from our California colony [Fort Ross], who told it to me. Thus even a perfectly accurate piece of information could be distorted through the oral transfer between interpreters who barely understood each other” (Zagoskin 1967:168; see also Pratt 1984:135–137).
- Similarly, Khromchenko must have had a minimum of one interpreter with him during his visit to Nunivak Island in 1822 (possibly even an “Aglurmiut” from Bristol Bay). But we have no information about the ethnicity, place of origin, or linguistic competence of his interpreter(s)—especially relative to the Nunivak

dialect—so the technical accuracy of the Nunivak vocabulary list he compiled is uncertain. Khromchenko may even have misidentified as “Nunivak” some of the vocabulary terms he collected.

13. Abundant archaeological evidence (e.g., Griffin 2004:33–70) does not support the presumption that Nunivak was unoccupied prior to the supposed Aglurmiut migration to the island, which Zagoskin’s remarks imply would have taken place by 1780.
14. Khromchenko was an explorer, not an ethnographer or a linguist. Ethnographic data in his 1822 journal have previously been described as “sketchy” (VanStone 1973:34). Comparative statements he made regarding Native languages and material culture must also be viewed with caution. Such statements by Khromchenko were often little more than gross generalizations, for example: “the Nunivak baydarkas are exactly like those of the Aleut” (VanStone 1973:61) and “the language of the Aglegmiut resembles the Konyag language in all respects” (VanStone 1973:54).
15. As noted by Black (2004:xiii), “the Russians (who seldom exceeded 500 persons at any one time) were vastly outnumbered by the Natives.”
16. The Aglegmiut and Kiatagmiut reportedly differed “in their languages” (Khlebnikov 1994:79).
17. This paper does not address reported Aglurmiut relationships (territorial or otherwise) with people on the Alaska Peninsula identified in historical accounts as “Severnovtsy,” “Ugazshentsy,” and/or “Aleut.” That problem has been considered in detail by other researchers (e.g., Dumond 1986, 1998, 2010; Dumond and VanStone 1995:1–13; Morseth 1998:22–26, 163–164nn74–97; Partnow 2001).
18. According to Garber (n.d.:2), “Ahlahlich” was located “about four miles down the coast from the present site of Quinhagak.” Clark M. Garber was employed in Alaska by the U.S. Bureau of Education from 1925–1933. After spending two years in Wales (on the Seward Peninsula), from 1927–1933, Garber was superintendent of the Western District of Alaska and lived in the Kuskokwim River village of Akiak. His interest in Alaska Native culture and history is evidenced by a number of related publications (e.g., Garber 1934, 1940).
19. In 2009, apparently, a shorter version of this story was told by Quinhagak elder George Pleasant (Fienup-Riordan 2013:394–398).
20. Orth’s (1967:87) information about “Arolik” and “Arolik River” presumably derived from a 1913 U.S. Coast & Geodetic Survey chart. Significantly, Kilbuck (Fienup-Riordan 1988:32–33) also reported that the site of the Warrior peoples’ last battle had been burned.
21. “*Nunalleg*” simply means abandoned village or territory (Jacobson 2012:461; Woodbury 1984b:11) and arguably should not be treated as a formal place name. The term is a description sometimes applied to old sites in the Yup’ik region, either as a casual reference or when the actual site name is no longer known.
22. As used here, the term *local group* means “an assemblage of relatives who considered themselves part of one social group, lived in the same winter village and followed a distinctive annual cycle, and whose boundary included all of the seasonal camps its members normally utilized” (Pratt 2009a:215).

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THE FLEET OF THE RUSSIAN-AMERICAN COMPANY

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ABSTRACT

From the first fur-hunting expeditions in the middle of the eighteenth century until the sale of Alaska in 1867, the success of Russian colonization in Alaska depended on the colonial fleet. Ships brought the first explorers and settlers across the ocean, delivered supplies and people from the motherland, defended the coast, and carried on trade and commerce. Yet to date there has been no study specifically focused on the fleet of the Russian-American Company. This article fills this gap by discussing the formation of the company's fleet as a dynamic process within the context of a wide array of commercial, political, and social issues.

INTRODUCTION

In many instances Russian colonialism followed the typical pattern of European expansion, but several aspects made "Russia's adventure in America" unique. Russia joined the European exploration of the New World relatively late. Russian Alaska was the country's first and only overseas colony. Moreover, it was the Russian Empire's first attempt at establishing a sociopolitical organization of almost exclusively maritime character. With the exception of Pomor fishing in the White Sea, Russia had no access to the ocean throughout most of its history and claimed its place among maritime states only at the beginning of the eighteenth century. For a country that had only recently mastered the waters of the Baltic Sea, expanding into the New World was an ambitious maritime endeavor.

From the first fur-hunting expeditions in the middle of the eighteenth century until the sale of Alaska in 1867, the success and the very existence of Russian colonization in Alaska depended on the colonial fleet. Ships brought the first explorers and settlers across the ocean, delivered supplies and people from the motherland, defended the coast, and carried on trade and commerce. Russian sea voyaging to Alaska both predated and predetermined the establishment of the Russian colonies and played a significant role in the development of the social and economic structure of Russian America. The reliance on ships as the main mode of transportation affected the geographi-

cal pattern of colonial settlements—almost all of which were located on the coast—and thus determined the extent of Russian contact with different Alaska Native groups as well as the colony's ability to access and exploit different natural resources. Yet to date there has been no study specifically focused on the fleet of the Russian-American Company (RAC), although some aspects of it were addressed in conjunction with Russian shipbuilding (e.g., Andrews 1934) and shipwrecks in Alaska (e.g., Anichtchenko 2013a; Anichtchenko and Rogers 2007; Black 1983; Pierce 1983; Rogers et al. 2008).

Understanding the development of the fleet of the Russian-American Company is relevant for both archaeological and anthropological research on Russian America. Ships' artifacts and timbers entered both maritime and terrestrial archaeological records as remains of shipbuilding activities, anchorages, and docks. Elements of abandoned and sunken ships were often recycled and reshaped into tools and structural wood. For most indigenous people of Alaska, the first contact with Russians was a maritime affair. First greetings and trade goods between Native inhabitants and non-Native newcomers were often passed between indigenous skin boats and the decks of ships. Carrying new technology, resources, and culture, shipping and ships themselves were agents of social and cultural change.

EARLY RUSSIAN SHIPBUILDING IN THE NORTH PACIFIC

Through seventy-five years of operation in the North Pacific, the RAC owned eighty vessels, acquired from three different sources: colonial shipbuilding, purchase in America, and European acquisition. Shipbuilding accounted for 61% of the entire fleet and was one of the company's most productive and consistent efforts. The RAC's first and last ships were launched in the colonial shipyards. In fact, the first ships used by the company and the first Russian shipyards in Alaska were built before 1799, when the Golikov-Shelikhov enterprise became the RAC, first in the East Siberian port of Okhotsk and later in Alaska.

Russians reached the Pacific coast of Eurasia in 1637 when a group of Cossacks under Ivan Moskvitin sailed down the river Ulia. Eight years later at the mouth of the Okhota River the Cossacks founded Okhotsk, a settlement destined to play a key role in the history of Russian expansion on the Pacific. By 1703 the Russians had five settlements in the North Pacific, three of which (Nizhne-Kamchatsk, Verkhne-Kamchatsk, and Bolsheretsk) were located on the Kamchatka Peninsula. All of the settlements were built at river mouths, which facilitated access to fresh water and offered optimal locations for shipbuilding. Shipbuilding had a very sporadic character. Even in the major ports, such as Okhotsk, there were no permanent shipyards. Ships were built when and where needed, usually by the same people who later took them to sea. As news about the Russian advances on the Pacific reached Tsar Peter I, the state took a more active position in ocean exploration. The year 1714, when "ship-carpenters, seamen and materials for the construction of vessels, were sent from Yakutsk to the port of Okhotsk" (Burney 1819:106), is considered the birth date of Russia's Siberian fleet.

The earliest voyages in the region, such as Dezhnev's famous passage through Bering Strait in 1648, were carried out on *koches* and *lodyas*. Both ship types were actively employed by the Russian mariners of the White Sea since the Middle Ages, but despite the longevity of these boat types, or maybe because of it, it is hard to identify their specific configurations. James Burney, for instance, believed that *koches* were "generally understood to be strong built vessels" (Burney 1819:64). The term *lodya* is even more generic—at different times it was used for Viking ships, dug-out fishermens' boats, and merchant vessels of Novgorod. The Russian word for "boat," *lodka* originates from *lodya*, and means literally "small *lodya*." Iconographic

evidence for both *koch* and *lodya* is equally confusing. Belov's reconstruction of the *koch* found in Mangazeia (Belov 1980: plate XXXV) is, for instance, identical to the representation of *lodya* in the 1859 work on Russian merchant shipbuilding (Bogoslavskij 1859). What is certain is that by the second quarter of the eighteenth century both *koches* and *lodyas* were ordered out of Russian shipyards and waterways. Much in accordance with his program of westernizing Russia, Tsar Peter I decreed that instead of these vernacular vessels, Russian mariners should build European (or more precisely Dutch) galliots, flutes, or frigates (Jasinski and Ovsyannikov 2010:154). The *List of Vessels of the Siberian Fleet* for the years 1714 through 1853 mentions eleven *lodyas*, the last of which was built in Okhotsk in 1729 (Bancroft Library 1855:folio 3).

State interest in the Pacific created a link between Russian maritime outposts in the Far East and the contemporary European shipbuilding tradition. The first attempts to build European-style ships during the preparation for the first Bering expedition demonstrated how arduous such an undertaking could be on the far edge of the frontier wilderness. It took almost two years to deliver all supplies and specialists necessary for the construction of the one-masted *Fortuna* from St. Petersburg to Okhotsk (Golder 1960:135–137). This might explain the persistence of more affordable ships built in the vernacular tradition despite the state's attempt to westernize local shipbuilding. By the middle of the eighteenth century the list of shipwrights in Okhotsk included Russian shipcarpenters Kirill Plotnitskij and Kargopol'tsev, as well as the Englishman Chaplin, who came to the Russian Far East with the first Bering expedition (Bancroft Library 1855). Shipbuilding in the Russian Far East was gradually becoming a specialized industry acquainted with European traditions of naval architecture.

Following the second Bering expedition and discovery of the Aleutian island chain, the rumors of this newly discovered region's riches caused a wave of short-lived merchant companies, formed with the sole purpose of "enriching themselves through sea otter skins" (Berkh 1974:1). Between 1743 and 1800, more than twenty companies built over eighty vessels for voyages to the Aleutian Islands and the Alaska mainland. Historical accounts identify only a quarter of these vessels according to their type. The rest of them are referred to as "vessels" (Blinov 1957:9–15). While the small percentage of identified ships does not allow one to draw definite conclusions, there seems to be a chronological pattern in the succession of the

vessel types. The largest group of identified ships consists of eight *shitiks*, which were built and used between 1743 and 1753. *Shitik* (from the Russian verb *sheet*, “to sew”) was a vernacular sewn watercraft popular in the Novgorod and White Sea regions from the Middle Ages until the early twentieth century. Its base was a single dugout tree trunk, to which side boards were “sewn,” usually by means of willow twigs. The seams were caulked with moss. Propelled by oars or square sails, *shitiks* were decked one-masted vessels about 14 m long and 5 m wide with a net tonnage of up to 24 tons. Rigging and sails for *shitiks* were often made of reindeer skins; the anchors were of wood with tie-on stone weights (Black 1984:79). A deck cabin, located aft, provided accommodation for the crew, while cargo was stored on the middle of the deck under a triangular shelter (Makarova 1975:107). An English traveler of the late eighteenth century, Captain James Burney, left an interesting account of the constructional and functional peculiarities of this watercraft:

On account of the frequency of being enclosed in the Icy Sea by the drift ice, it was customary to construct vessels in a manner that admitted of their being with ease taken to pieces; by which they could be carried across the ice to the outer edge, and there be put together again. Vessels so constructed were called *schitiki*; the planks were sewed together with twisted osiers, and fastened to the timbers only by leathern straps, in lieu of nails or pegs. The interstices were stuffed with moss, instead of caulking, and the seams were covered with lathes, to prevent moss from being washed out. The name *shitik* implies sewn. Notwithstanding the slightness of their construction, they were decked (Burney 1819:64).

Peculiarly, the ship of Bering’s first expedition, the above-mentioned *Fortuna*, was also identified as a *shitik* (Gibson 1992:97). However, a contemporary sketch by Spanberg, one of the members of the expedition, reveals a modern and sophisticated vessel with fully developed stem and stern, suggesting the likely presence of iron fastenings (Golder 1960:167).

Bot, a Russian adaptation of the Dutch single-masted shallow-draft *bootier* (Black 1980:316), which relied on both sail and oar propulsion, dominated from 1757 until 1778, when five of them are mentioned in the sources. One of the documents of the Russian Archive of the Ancient Acts in Moscow provides an interesting account. It supports the date of transition from the vernacular sewn boats to the later more European craft: “In 1757 they began to

build boats (*boty*) or barks (*barki*) with wooden reinforcements, or ribs, which to distinguish from the *shitiks* were called ‘*gvozdenniks*’ [held with nails or pegs] (Makarova 1975:107 citing RGADA [*Rossiiskii Gosudarstvennyi Arkhiv Drevnikh Aktov*, the Russian State Archive of Ancient Documents] f. 199, d. 538, ch. II:11, 236–247). By the end of the eighteenth century, the historical accounts of local shipbuilding start mentioning *galliot*s, three of which were built between 1783 and 1785; one is recorded in 1762. Like *boty*, *galliot*s originated in Holland and became popular in the Russian Azov and Baltic fleets during the reign of Peter I. They measured about 20 m in length, 3 m in beam, had 3 m depth, and carried one or two masts (Black 1980:316–317; Gazonko 2000:27–28).

Building and equipping a ship was by far the most expensive part of preparation for a voyage. While Okhotsk had plenty of suitable timber, other material such as iron fasteners, canvas, rigging, and ropes had to be purchased in Yakutsk. Most of these items were quite expensive: a *pud* (36.11 pounds) of iron, for example, cost 20 rubles, which equaled the average monthly salary of a Siberian Cossack, and cordage was twice that much (Berkh 1974:13). With most food supplies also brought from Yakutsk, a vessel equipped for a fur-gathering voyage cost from four to ten thousand rubles (Makarova 1975:107).

The technological sophistication of these ships was not always a good match for the opportunistic enthusiasm of the Siberian seafarers. Aleksandr Baranov, the first manager of the RAC, when asked about the reason for the extreme slowness of the ships of “these first Argonauts,” provided insight into the local approach to ship construction:

Formerly all owners of seagoing vessels tried to build them very high, figuring that this way they would have more room for crew and cargo. Most of these vessels had galiot type rigging with short, heavy masts and narrow sails in order to economize on canvas. The rudders were of amazing design with blades at least 1 ½ sazhen [2.7 m] long. Putting out to sea in such a ship the navigators soon found that it had no speed at all. Believing that a long rudder contributes to the speed of the ship, they added frequently to its length. When two such navigators would meet at some island, the first question after the usual courtesies and conversation about sailing would be: “How many times have you lengthened your rudder?” During my stay at Okhotsk, a clerk of the Shelikhov and Golikov Company came to ask my permission to take eight bottles of French brandy to the shipwright. “Why do you want to give him such a handsome present,

brother? He gets a stipulated pay.” “This, my dear sir, is unavoidable, for two weeks now I have been asking him to build the galiot *Petr i Pavel* at least one arshin (0.7 meter) higher, but he refuses and I think a present will help in this case a great deal.” “Naturally,” continued Baranov, “I put this block-head out of my room, but by doing so I offended all the Company’s employees. Only the shipwright, a man skilled in his trade, approved my action” (Berkh 1974:69–70).

However unsophisticated the vessels of the Far Eastern seafarers may have looked in comparison with European ships, they performed fairly well. Ten or more years of operation was not an unusually long career for the vessels built on Siberian and American coasts in the second half of the eighteenth century. The high rate of wrecking (virtually one of every four ships was lost to the sea), although naturally related to the quality of the ships, should, nevertheless, be assessed in conjunction with both the absence of navigational charts and the legendary severity of the North Pacific.

RUSSIAN-AMERICAN COMPANY’S SHIPBUILDING

The beginning of Gregorii Shelikhov’s company, which in 1799 became the RAC, was no different from other

Alaska enterprises. With starting capital of 70,000 rubles, he built three ships. Like many other products of local shipbuilding of the last quarter of the eighteenth century, these ships were galliots named after the saints whose protection was sought to improve the odds of sailing in Pacific waters: *Tri Sviatitelia* (Three Bishops), *Arkhiestratig Mikhail* (Archangel Michael), and *Simeon Bogopriimets i Anna Propochitsa* (Saint Simeon and Anna the Prophetess) (Tikhmenev 1978:12). The real departure from the prevailing mode of fur trading came later when, following the establishment of the first Russian settlement in Kodiak, Shelikhov instructed Baranov to start building ships in Alaska. While shipbuilding in Okhotsk was difficult and expensive, it was still far easier than in Alaska.

Nevertheless, by 1794 the first Russian shipyard in Alaska and the first shipbuilding facility on the entire Pacific coast of North America began its operation at Voskresenskoe settlement in Resurrection Bay (Seward) (Fig. 1). Here English shipwright James George Shields constructed three ships: the *Phoenix*, *Dolfin*, and *Sv. Olga*. To make up for the shortage of pitch, paint, and oakum, the ships were caulked with a mix of pitch, ochre, and whale blubber. These and other creative shortcuts affected the vessels’ performance. In 1795, only a few months after the *Olga* was finished, Baranov took her on a voyage to Yakutat Bay. On the second day at sea she sprang a leak and

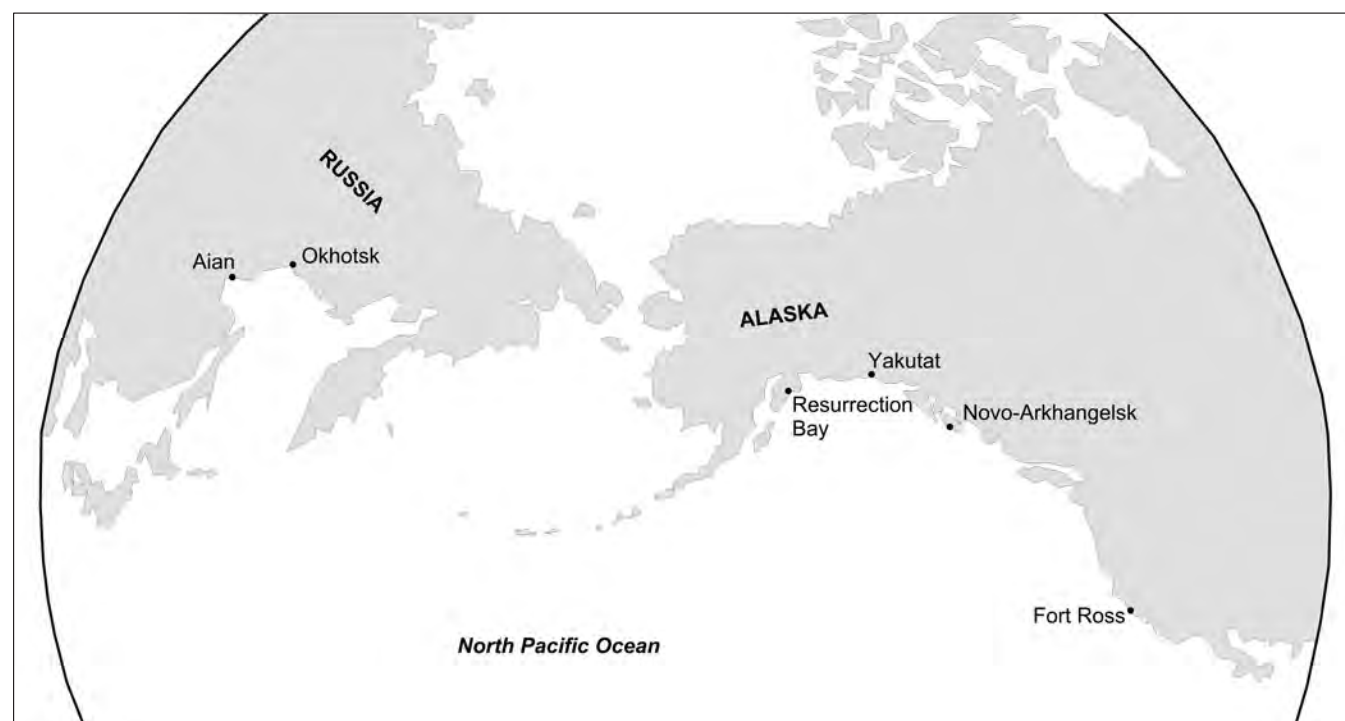


Figure 1. Shipyards of the Russian-American Company. Map by Jason Rogers.

almost sank. After repairs, however, the vessel remained at sea until 1802 when she wrecked and was burned “to celebrate the conclusion of peace” after the clash between Tlingits and Russians (Tikhmenev 1978:74). The iron from the *Olga* was used in the construction of two new vessels: the *Ermak* (100 tons) and *Rostislav* (85 tons), built by Russian shipwright Ivan Kuskov in Yakutat the same year (Fedorova 1973:191; Tikhmenev 1979:74). The lack of naval stores was so pressing that even the rotten ropes from the wrecked vessel were used after fortification with tree roots, baleen, and hemp (Tikhmenev 1978:74). In 1799, the Russians started building ships in newly founded Novo-Arkhangelsk (Sitka).

Despite all the difficulties and the ships’ mediocre performance, Shelikhov’s shipbuilding had meaning beyond immediate pragmatic considerations of profit. Establishing such an advanced industry in Alaska gave Shelikhov’s enterprise political resonance and raised it above other Russian companies, which approached the Aleutian Islands and mainland Alaska exclusively as hunting grounds. Ships of other countries, especially Great Britain and Spain, were now also venturing into Alaska waters. Russian shipyards and forts on the North American shores were a nonverbal declaration of Russian rights to the territory and the intention to defend them. Thus, shipbuilding heralded the official establishment of the Russian colonies in America.

Although directed towards European powers, the Russian message had strong implications for the Native peoples of Alaska. The Russians’ use of water and land resources violated traditional systems of ownership, and although formal agreements were sometimes reached (as in the case of the establishment of Novorossiisk settlement in Yakutat Bay in 1796), they were forced, uneasy, and consequently fragile (Tikhmenev 1978:42–44). Neither written sources nor oral traditions provide direct evidence of the indigenous perspective regarding Russian shipbuilding facilities, which were likely perceived as part of Russian settlements. The first Alaska Native encounters with the ships, however, are captured in several dramatic accounts. The earliest of them is Arsentii Aminak’s recollection of Stepan Glotoff’s ship, which called at Alitak Bay on Kodiak Island in 1763:

When we saw the ship at a distance we thought it was an immense whale, but soon discovered that it was another unknown monster of which we were afraid, and the smell of which made us sick. The people on the ship had buttons on their clothes, and at first we thought they might be *octopai*,

but when we saw them put fire into their mouth and blow out smoke we knew they must be devils (Bancroft 1960:144).

Indigenous relationships with ships evolved throughout the history of contact. Magical and strange at first, the large vessels were perceived as hostile. Russian ships that fell into Native hands during the initial contact period—as during the “Aleut revolt” of 1763—were often burned (Laughlin 1980:122). This likely had as much to do with sacrificial extermination and purification of the land and ocean as it did with obtaining metal from their fasteners. The above-mentioned burning of the ship Sv. *Olga* during the peace ceremony between Russians and Tlingits also had a sacrificial character (Tikhmenev 1978:74). The peace was short lived and two years later the Russian settlement at Yakutat and local shipbuilding facilities were destroyed.

In Novo-Arkhangelsk the shipbuilding proceeded with great difficulty, which Nikolai Rezanov, one of the founders of the RAC, described in his letter to Hieromonk Gedeon in September 1805:

We live very badly, it pours with rain every day, and however necessary the work, one does not feel very enthusiastic about carrying it out. In the mean time a quay is under construction here and slipways have been cleared for two ships, we are felling a little wood and with God’s help we shall soon have on the stocks a 16-gun naval brig and an eight-gun tender—plans and sketches for which have already been drawn up (Bearne 1978:158).

Both vessels were decent productions of two Russian shipwrights, Koriukin and Popov. Count Rezanov characterized them in his report to the shareholders in 1805:

Mr. Koriukin and Mr. Popov, ship apprentices, appear skillful in their profession. If kept in hand they are very useful men. The first is a very good draftsman and makes good sketches, surveys and maps and is so exact in his work that he pleases everybody. The second, besides being skillful in his trade, is a good sailmaker and likes mechanics. Because of that he is useful in construction of works of various kinds. When sober they are very easy to get along with, but when drunk they are worse than useless and anything can be expected from their wildness. They have not acquired this ruinous habit, but being young they will do so by indulging too often (Tikhmenev 1979:192).

This turned out to be a prophetic statement: by 1806 both were fired for heavy drinking (Pierce 1990:130).

Starting in September 1806, ships in Novo-Arkhangelsk were built by an American shipwright named Lincoln (Pierce 1990:310). Until he left Novo-Arkhangelsk in 1809, Lincoln built three ships (the brig *Sitkha*, the three-master *Otkrytie* of 300 tons, and the schooner *Chirikov*), repaired two more company vessels (the *Juno* and *Alexander*), and trained a Russian carpenter, Vasilii Grudinin, as a shipwright. Lincoln's departure terminated building of new ships for several years. At the same time the company continued building ships in the Russian Far East. During the first decade of the eighteenth century, the colonial fleet included fourteen ships launched in Okhotsk (Blinov 1957:20–23). Ranging in price from 15,000 to 25,000 rubles each, they appeared too expensive for the company's board of directors, which considered building the ships in America or purchasing them from English or American captains more feasible (Tikhmenev 1978:60).

In 1816, a shipyard opened in Ross settlement, the RAC's California outpost, where Grudinin built six vessels, two of which were constructed specially for the missions at San Francisco and San Jose (Allan 1996:38). These were the first vessels sold by the company. The ships proved to have an extremely short life span, never exceeding five years, which was blamed on the quality of California oak. Since the same oak was successfully used in the California shipyards of the late nineteenth and early twentieth centuries, the poor durability of the ships was more likely a result of improper seasoning of the timber (Allan 1996:45). In 1827, shipbuilding at Fort Ross was abandoned (Tikhmenev 1978:228). Grudinin moved to Novo-Arkhangelsk and was employed in repairing ships (Pierce 1990:181).

The California shipbuilding disaster convinced the company directors of the superior durability of the timber of the Russian Far East, consequently leading to restoration of the company's shipbuilding in Okhotsk (Tikhmenev 1978:209). Shipbuilding in America was restricted to the shipyards of Novo-Arkhangelsk, which by that time had become an impressive North Pacific port with docks, stores, and all workshops necessary for shipbuilding and repair. In 1843, the waterfront of the city was improved with a stone pier and a new wooden embankment on a stone foundation (Russian-American Company 1844:26). The port had a lumber mill, chandlery, and a sail-loft aboard the old company ship *Rurik*. The workshops were not solely devoted to the needs of the shipyard: blacksmiths also produced agricultural tools, a foundry

cast bells for trade with the California missions, and copper workers were engaged in producing artifacts for barter with the Natives (Litke 1987:47).

In 1827, general-manager Chistiakov commenced building of small tenders, which proved particularly useful for the "Aleut" hunting parties and for coastal sailing. Four such vessels built on the same plan (the *Unalashka*, *Bobr*, *Sivuch*, and *Aleut*) were launched in 1827 (Tikhmenev 1978:208). The main production of the shipyards, however, was rowboats, called *baidara*, three of which were launched annually. In 1850, Captain Collins of the British ship *Enterprise*, which called at Novo-Arkhangelsk for repair, purchased nine of these small watercraft (Russian-American Company 1851:24).

Commenting on the conditions of shipbuilding in Novo-Arkhangelsk particularly and the colonies in general, the famous explorer and geographer Fedor Litke wrote in 1830:

The ships that are built here [Novo-Arkhangelsk] do not last very long, either because of the poor quality of the wood or because it is not left long enough to dry before it is used. A type of cypress is used for the ship's frame; fir for the decks and the bridge; and larch wood for the sheathing and, sometimes, also for the bridge. The governors sometimes prefer to buy vessels built in the United States and these are the best ships owned by the company, but the top management found this speculation not to their advantage and decided to concentrate more on on-the-spot construction. . . . All ships are reinforced with copper and nowhere is this precaution more essential than here, where wood is terribly worm eaten. It has often happened that ships, which stayed in port for several months at a time found, when they weighed anchor, that the anchor stocks were completely eaten away (Litke 1987:46–47).

In 1839, the company yards in Novo-Arkhangelsk started to build steamships. The 60-hp crosshead steam engine for the *Nikolai I*, the first paddle-wheel steamer of the RAC, was purchased in either Boston or New York (Burwell 1999:104–105). The same year her builder, American mechanic Edward Moore, completed another, smaller steamer, which he named after himself. The *Mur* was the first steamship built entirely in Russian America, and also the first steamer constructed on the Pacific Coast. She was sold to a Mr. Leidesdorff of San Francisco in 1847. Under its new name, the *Sitka* became the first steam vessel to navigate California's rivers (Kemble 1935:143).

Satisfied with her performance, the new owner ordered another steamer of 12 horsepower (Russian-American Company 1848:28). By that time Moore had already left the colonies, and the steamship building was supervised by his former assistant, Grigorii Terent'ev (Pierce 1990:361). Hudson's Bay Company Governor Sir George Simpson commented on the ongoing construction of a new steamer at the Novo-Arkhangelsk shipyards: "The workmanship appears good and solid, everything for her is made on the spot, for which purpose they have casting-houses, boiler-makers, coopers, turners and all other requisite for such an undertaking. The boiler is almost completed and is made of copper" (Simpson 1849:310–311).

To replace the *Mur*, the company built the 12-hp paddle-wheel steamer *Baranov*, completed in 1848 (Russian-American Company 1850:26). There is no information regarding the origin of the vessel's machinery. The provenance of the engines of the next two steamships built by the company in 1853 (new *Nikolai I*) and 1860 (new *Baranov*), are also unclear. Tikhmenev states that both of them were imported from the United States (Tikhmenev 1978:360; cf. Russian-American Company 1853:23), while other sources indicate that the machinery of the *Nikolai I* was rescued from its wrecked namesake while the *Baranov*'s 30-hp engine was built in Novo-Arkhangelsk (Golovin 1979:50).

In 1850, the Hudson's Bay Company's steamer *Beaver*, known to be the first steamship on the Pacific coast of America, stopped in Sitka for repair (Russian-American Company 1851:21), which gave the company's managers a reason to emphasize once again that Russians possessed the only facility on the Pacific coast that could carry out such a project. The last ship built in Russian America was the steamer *Politkovsky*, commenced in 1862 and finished in 1865. Her engine came from the steamer *Nikolai I*, which wrecked in 1861. She remained in America after the purchase of Alaska and under different owners paddled the North Pacific waters until 1896 (Burwell 1999:110).

Altogether, starting from the first Shelikhov enterprise in 1794 until 1867, the five company shipyards produced a total of forty-nine ships: seven steamers, one barge with a steam-driven sawmill, and forty-one sailing vessels (Anichtchenko 2004a). One of the most energetic periods of shipbuilding coincided with the early history of the company (1794–1804). During this decade, six years of which preceded the official incorporation of the RAC, the company built thirteen ships, roughly one per year (Fig. 2). This was the period of exploration, which took a heavy toll

both on ships and people. Sailing in little-known waters with untrained crews, vessels wrecked frequently, forcing the company to build more ships. With the exception of two ships purchased for the round-the-world voyage from St. Petersburg to Alaska, colonial shipbuilding was the only source for the company's fleet. In 1805 the Russians began actively purchasing foreign-made ships.

The beginning of shipbuilding in Novo-Arkhangelsk in the same year marks the start of a new period in colonial shipbuilding. The RAC felt confident and resourceful enough to terminate the works in Okhotsk in 1809, and for twenty years the company relied on its American facilities. In 1817 the first ship was launched in new shipyards at Fort Ross. For the next decade (1817–1826) these two yards built eight ships (six in Fort Ross and two in Novo-Arkhangelsk). Yet shipbuilding in California split the company's limited labor force and consequently affected the yards' productivity. Once the yard in Fort Ross was abandoned, Novo-Arkhangelsk reached a peak of production with six ships over the three-year period from 1827 to 1829. The Okhotsk yards made a short return, producing three ships between 1829 and 1831. With the exception of one ship built in Aian, the company concentrated its shipbuilding in Novo-Arkhangelsk until the sale of Russian Alaska in 1867.

The total number of ships built was proportional to the longevity of the yards. Novo-Arkhangelsk and Okhotsk together launched over 75% of all ships built in the company's yards (Fig. 3). The importance of the

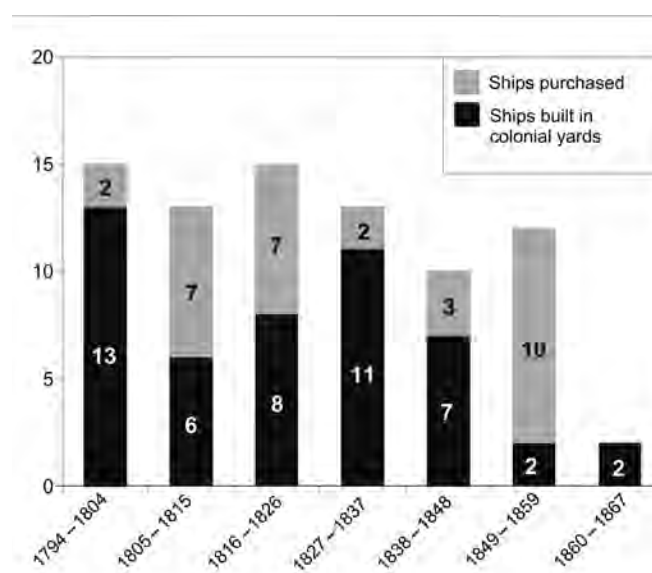


Figure 2. Development of the fleet of the Russian-American Company, 1794–1867.

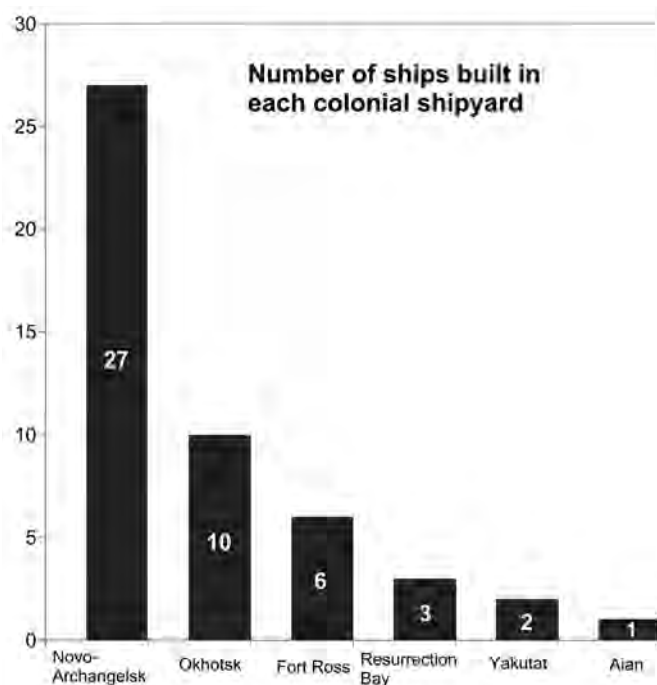


Figure 3. Number of ships built in each colonial shipyard, 1794–1867 (Anichtchenko 2004b:119–147).

shipyard, however, does not necessarily correspond to the number of vessels it produced. Both the Resurrection Bay and Yakutat yards were important as first attempts in the demanding task of building ships in Alaska. Once the RAC's monopoly was established and the rights of the Russian crown to Alaska secured, the meaning of shipbuilding changed. After initial exploration gave way to systematic exploitation, shipbuilding started to play the role of an auxiliary industry and occupied a surprisingly marginal place in the overall management of the company. Throughout its entire history, the RAC made little effort to turn shipbuilding into an avenue of additional income. The company closed the shipyards at Fort Ross in 1825, the same year it sold its first ships, and failed to pursue commercial shipbuilding when Novo-Archangelsk was the only place on the Pacific coast of North America capable of producing steamers. Yet colonial shipbuilding remained the main source of RAC ships.

Paradoxical at first glance, the company's attitude towards shipbuilding was deeply rooted in the phenomenon of mercantilism, which tied together the private pursuit of profit and national interests. Considerations of profit would have dismissed commercial shipbuilding as too laborious, time consuming, and expensive. The strategy of promoting Russian industry ensured that even when it was more cost-effective to obtain ships from other

sources, the company continued to build them, advertising the colonies' self-sufficiency and thus improving the company's image in the eyes of both investors and the international community.

An alternative source of ships immediately available in America was buying them from Russia's rivals in the North Pacific: British and American fur traders. Although not supportive of domestic shipbuilding, these acquisitions were convenient and played an important role in the formation of the RAC fleet.

PURCHASED VESSELS

On May 9, 1804, the Bostonian ship *Juno* of 206 tons dropped anchor in the port of Novo-Archangelsk. Dispatched from Bristol, Rhode Island, in August of 1803, she had a long and perilous voyage around Cape Horn, and needed maintenance. The captain, John d'Wolf of Rhode Island, enjoyed this break. The Russians impressed him with both their alcoholic hospitality and the scale of their plans. After several months of the fur trade in the Alexander Archipelago, he returned to Sitka as an old friend. It was a difficult time in the company's life. Held back by a shortage of resources and the shipwrights' attachment to liquor, company construction of much-needed ships proceeded extremely slowly. When d'Wolf joked about selling the *Juno* to the manager of the company, the latter pursued the idea. The price paid by Baranov was four times that of a new vessel built in Okhotsk. In return for the *Juno*, d'Wolf received 109,821 rubles (\$65,000), the company's small vessel *Ermak*, and the loan of the *Rostislav* (Pierce 1990:130). Baranov apparently was not dissuaded by the vessel's earlier mishaps: during the preceding year she was battered by storms at Cape Horn, suffered a collision at Valparaiso, and struck a rock in the Alexander Archipelago. The reason for such an unlikely deal lies in the condition of public health in Novo-Archangelsk at the time. In January 1805 the workers began to die of scurvy, and the company needed a sizeable vessel for a provisioning trip to California. In some ways, therefore, the *Juno* was an emergency purchase.

The company's next acquisition was also unplanned. In 1806, a group of Unangan/Aleut sea otter hunters sailed to Baja California aboard the American vessel *O'Cain*, where the Russian captain, Pavel Slobodchikov, quarreled with her owner, Jonathan Winship, Jr. Slobodchikov left the vessel and for 150 sea otter skins (his crew's share of the *O'Cain's* hunt), he purchased the *Sv. Nikolai*, a ship

originally built in Hawai'i for King Kamehameha, christened the *Tamana* and later purchased by two Americans who sailed her to Baja California (Owens 1985:28). Two years later the wreck of this ship aborted Baranov's plans to create a settlement on the Columbia River, allowing the American John Jacob Astor to gain a foothold on the Pacific coast, which ultimately decided the fate of the Oregon country (Gibson 1976:11).

By the end of the first decade of the nineteenth century, prices for foreign vessels acquired in America became much more reasonable. In 1807, for example, the British ship *Myrtle* (renamed *Kad'yak*) was acquired for 42,000 rubles (Pierce 1965:81). The company also found it advantageous to pay for the purchased ships with furs, and in 1814 three "fully equipped copper-sheathed" American vessels of 250 tons each were bought with sea otter skins (Tikhmenev 1978:149). At first these were ships that came to Russian attention while trading or hunting in Alaska, Hawai'i, or California. Not surprisingly, with a few exceptions, the vessels purchased in America were built in U.S. yards in Boston, New Bedford, and New York.

A more selective approach governed purchase of the so-called "round-the-world ships." Round-the-world ships were ships sent from St. Petersburg to Alaska via Cape Horn and Cape Good Hope. At first the sole purpose of such expeditions was avoiding the long and costly overland transportation of goods necessary for colonial operations. Since the majority of Russia's industrial centers and agricultural areas were located in western Russia, supplying Russian America with Russian goods included overland transportation across most of Eurasia and then shipping from Okhotsk to Alaska. Direct shipping from St. Petersburg was faster and more cost-efficient. This new way of supplying the colonies commenced in 1803, when two ships, *Nadezhda* and *Neva*, sailed from St. Petersburg to the Pacific outposts of the RAC. Since the round-the-world ships often remained in Alaska, this also reinforced the company's fleet. As the company's representatives in St. Petersburg experienced difficulty finding ships appropriate for such demanding voyages in Russia, they began to acquire them in the ports of Western Europe instead.

Both political and economic factors influenced the pattern of European purchases. At the beginning, the company relied on British shipyards. By 1847, however, the escalation in tensions between Russia and England, which eventually led to the Crimean War, prompted the RAC to search for other European builders. The German Hanseatic cities of Lübeck and Hamburg, with their

old tradition of shipbuilding and convenient access to European industries, offered perfect sources of affordable ships and supplies. From 1821 to 1852, six ships for the RAC were purchased in Germany. Two of sixteen RAC round-the-world ships were built in the Finnish city of Åbo (Turku), and five were ordered from East Coast shipyards in the United States.

Not all round-the-world ships belonged to the company: two-thirds of the ships carrying passengers and supplies from Europe to colonial settlements in the New World were Russian imperial naval vessels (Ivashintsov 1980:iii). They usually came to Alaska in late summer, overwintered, and left the following spring with passengers and goods bound for St. Petersburg. These were the only ships built in western Russia that were engaged in company business.

While company documentation does not explain why the RAC did not purchase more ships from Russian shipyards, there were probably three main reasons. First of all, during the first half of the nineteenth century, Russia was involved in several wars, which forced the country's shipyards to concentrate on naval needs. Second was the matter of price: the highly industrialized shipyards of England, Germany, and America were more efficient and offered more affordable ships. Finally, all the shipyards in Russia capable of producing the required vessels belonged to the government and thus lacked the flexibility of the smaller commercial private European shipbuilding establishments.

In addition to economic goals, round-the-world voyages often had political or scientific agendas. One of the main goals of the voyage of the *Neva* and *Nadezhda* in 1803–1806, for example, was to establish diplomatic relations with Japan. International politics often caused alterations of routes and schedules. Politics, combined with the decline of the fur trade, which meant no profit on the return trip from Alaska, eventually brought round-the-world voyages to an end.

FLEET ANATOMY: ANALYSIS

Between 1794 and 1867, forty-nine ships were built in the colonies and thirty-one were purchased. The fact that the company was unable to build enough vessels for its own use was often criticized by both Russian and foreign observers. Yet it also demonstrates that the managers of the RAC recognized the strengths and weaknesses of their shipbuilding, and engaged the American and European

ships to the company's financial benefit. Although at no point in the company's history did the officials and directors develop an articulated fleet program or plan, the average number of active seagoing company-owned ships fluctuated between ten and twelve throughout the sixty-eight years of Russian presence in Alaska.

Colonial shipbuilding reached two peaks: 1794–1804 and 1827–1835. The first was the period before the RAC began to purchase foreign vessels for their fleet; the second was the time when the company had three active shipyards (Fig. 2). The decade from 1849 to 1859 demonstrates a shift from shipbuilding to purchasing ships both in Europe and North America. The further reduction of both colonial shipbuilding and purchase of foreign vessels indicates not the decline of the RAC fleet but rather a general improvement in navigation, resulting in a decreased rate of wrecked company ships.

With time, the average tonnage of ships launched in the colonial yards decreased. Starting in the 1830s, the company's shipyards began to specialize in smaller vessels designed for cruising the coast, leaving the construction of larger deep-water ships to the shipbuilding facilities of Europe and America. Tonnage-wise, foreign-built ships constituted the larger part of the fleet, which demonstrates the company's objective evaluation of their shipbuilding capacity.

The picture emerging from this analysis is a well-planned, though small and somewhat conservative fleet that developed in response to the immediate needs of the Russian colonies. This focus on internal needs resulted in some lost commercial opportunities. Even when the port of Novo-Arkhangelsk was the only facility on the entire Pacific coast of North America capable of producing steamships, the company overlooked the chance to establish a potentially profitable business. Before blaming such an attitude on lack of entrepreneurial ambitions or the company's shortsightedness, one should consider the organization of the company's maritime affairs.

ORGANIZATION OF MARITIME AFFAIRS

Throughout its entire history, the RAC battled two problems: the lack of sufficient manpower and the inability to be self-sufficient in agricultural production. Difficulties with recruiting low-class workers for the Russian colonies in America are frequently blamed on feudal serfdom, which the Russian Empire abolished only in 1861 (Sarafian 1970:12). However, neither the free middle

class nor the nobility rushed to settle in the colonies. The company sought to solve this problem through recruitment of Siberian exiles as well as the government-sponsored program of engaging retired naval ranks. One incentive it could not offer was a monetary reward. After Shelikhov's company secured the monopoly on Alaska furs, the flow of wealth rarely reached the pockets of men living and working in Alaska. The labor shortage strongly affected all areas of the company's life, including seafaring. The company rarely had more than two shipwrights. The average number of mariners was thirty-seven sailors and fifteen officers. Considering that it took a crew of thirty to operate a standard sailing ship, this situation was indeed catastrophic.

To offset the lack of Russian sailors, the company did two things: (1) recruited local populations, both Alaska Natives and children of mixed Russian and Native parentage; and (2) hired foreigners. Navigational training of Alaska Native and Creole children took place both in the colonies and in Russia. In 1794, a fifteen-year-old Russian boy, Filipp Kashevarov, was assigned to the English shipbuilder James Shields to study navigation. The apprenticeship brought long-lasting results: throughout his career in Alaska, Kashevarov commanded many vessels. Three sons born of his Native wife became seafarers after receiving their education at the Kronshtadt Navigational School near St. Petersburg (Pierce 1990:217–218). Sending children to schools in Russia became a standard practice. In 1850, for instance, the company was sponsoring twelve boys attending educational institutions in St. Petersburg, including two attending navigational schools (Russian-American Company 1851:16). Most of these students were children of mixed Russian and Alaska Native families, although official company records do not specify if Russian parentage was a requirement. Prestigious as it may sound, studying abroad was both difficult and dangerous for young Alaskans. Exposed to the new diseases and loneliness far from home, some of them died in Russia. On average, this educational effort yielded one trained mariner each year. Once back in Alaska, these young men were held in high esteem and often had very successful careers as navigators and ship captains.

Training was also available in the colonies. In 1834, the colonial government requested one officer and three mariners to be sent to Alaska specifically "to train creoles in seafaring" (Russian Naval Archive 1834–1836:1). By 1843, the boys' school in Novo-Arkhangelsk had forty-nine students, and according to the RAC annual report, two of the

graduates “were found very fit for the position of captain’s assistants” (Russian-American Company 1844:26).

State aid for the problems of colonial seafaring consisted mostly of the round-the-world voyages of the naval ships and the dispatch of naval officers for open positions in America. This program was naturally susceptible to changes in European politics: e.g., in the event of escalation of conflict with another nation, officers would be needed for the navy. Yet naval participation in and supervision of the company’s seafaring contributed both to improved ship maintenance and discipline at sea.

Any discussion of discipline in the colonies can hardly avoid the issue of employee alcoholism (Anichtchenko 2013b:133–139). The company managers recognized the problem and tried to battle it, each in his own manner. Alexander Baranov, for example, invented an entire training strategy:

He would lock himself in the fort together with the entire garrison, bring a bucket full of rum and invite everyone to drink as much as they want, and also would drink himself. As soon as he saw that everyone was drunk senseless, he sounded the alarm. Everyone was expected to be in his place. Those ones who could not crawl to their places, but laid with their ammunition, Baranov always praised, but woe betide him who laid drunk without his gun. For this Baranov punished severely. Baranov always said: drink, but mind your business. If one lays drunk with the gun, savages won’t touch him, thinking that he is just pretending, those, however, who are armless, will be attacked by savages, since they will see that he is defended less (Markov 1849:29).

In 1845, the harsh but logical solution was instituted when drinking hard liquor was banned everywhere in the colonies, except aboard a ship, where it was strictly rationed. This prohibition was announced at a public meeting of colonial employees and had such a drastic effect that many people “upon hearing this could not repress tears” (Markov 1849:33). Although this regulation was both widely unpopular and unsuccessful (as smuggling and moonshining were hard to control), no loss of a RAC ship following the prohibition was blamed on a drunken crew or commander. In fact, this period was virtually free of disasters at sea.

The fleet’s performance in fulfilling its mission of colonial trade deserves special attention. Throughout the history of Russian Alaska, fur trade with China was one of the colonies’ main *raison d’être*. Unlike other European

powers, Russia’s main access to the Chinese market was not the sea port of Canton, but the inland trading outpost of Kiakhtha. The ships, therefore, only partially participated in this important trade: they delivered furs from Alaska to the ports of Okhotsk and Petropavlovsk, leaving the rest to the long overland routes. Likewise, the valuable cargo of teas, obtained in China, was in many cases sent to Russian markets overland across Siberia. Watercraft, therefore, were mostly engaged in two other areas of colonial life: communication between the various outposts and supplying the company.

The latter was a constant problem. Grain and meats were imported from Europe, European Russia, and California; sugar, salt, rum, and coffee came from Hawai’i. The gold rush of 1849 created a massive exodus of the labor force from Hawai’i and at the same time caused inflation of prices in California, thus destroying two of the Russians’ most important lines of supply. The same gold rush provided new financial opportunities, such as the ice trade, which the company entered in 1852 after the *Bachus*, a vessel belonging to the American Ice Company, arrived in Sitka and purchased 250 tons of ice at the attractive price of seventy-five dollars per ton (Tikhmenev 1978:335). The next year, Russians began ice shipments to San Francisco that would reach 1,200 tons annually. This new commercial initiative demanded year-round participation of two company vessels. Despite its success, the ice trade was not enough to solve the company’s financial problems, and in 1867 the Russian Crown signed the sales agreement with the United States. At this time the Russian American fleet consisted of twelve vessels, only two of which had less than ten years’ career at sea. Ten of the Russian-American Company ships were sold to interested parties in America and Canada; the other two sailed back to Russia (Pierce 1972).

The Russian historian S.B. Okun offered the following outline of the history of the RAC: “in the first period of the Company’s existence there was peltry but no order. In the second period there was more order but less peltry, and, finally, in the third period, there was perfect order but the treasury was empty” (Okun 1951:225). In many ways the development of the company’s fleet fits this description. It started as a random collection of vernacular vessels and developed into a reliable body of ships built to the latest standards of European and American shipbuilding. Although hardly impressive when it came to number and quality of ships, the RAC fleet played an important role in the development of seafaring and naval presence

in the Bering Sea and the North Pacific: ports were built, coasts were charted, and a generation of Russian and Native sailors were trained. The vast oceans east of the Siberian coast were no longer the terminus of the Russian Empire, separating it from America, but a bridge, a connection, the benefits and perils of which continue to play important roles in the political and economic history of both countries.

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A. F. KASHEVAROV, THE RUSSIAN-AMERICAN COMPANY, AND ALASKA CONSERVATION

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ABSTRACT

As Russia debated selling Alaska in the 1860s, A. F. Kashevarov, an Alaska Creole, published his thoughts about reforming the Russian-American Company (RAC). In several articles for the Russian naval journal *Morskoi Sbornik*, he described the RAC's hunting policies and conservation measures. Kashevarov's articles represent some of the few sources providing information on Russian-era traditional ecological knowledge (TEK), even if his depth of knowledge concerning Aleut (Unangan) and Alutiiq environmental practices and conceptions is uncertain. Despite company claims of conservation successes, in Kashevarov's view the RAC had misunderstood the Alaska environment and mismanaged its fur resources. Claiming that marine mammals behaved unpredictably and were entwined in a complex ecology, Kashevarov insisted that company attempts to create *zapusks* (closed seasons) did not work. Instead, he proposed that only Alaska Natives understood the animals well enough to manage them and thus should be ceded control over Alaska's environment. Though these radical claims were met with company derision, Kashevarov's pleas for ecological sophistication and ecological justice provide some glimpse into the desires of Alaska Natives shortly before the colony's demise.

INTRODUCTION

In the 1860s, as the Russian empire debated selling Alaska to the United States, some new, unexpected voices arose to challenge Russian-American Company (RAC) administrators and imperial officials and put forth their own plans for the colony. Among those voices was that of the Creole Alexander Filippovich Kashevarov, who had been born on Kodiak Island around 1809. As an aging naval bureaucrat living in St. Petersburg, he wrote a series of articles for the journal *Morskoi Sbornik* [*Naval Collection*], in which he laid out his vision for the colony's future, one that would turn over control of Alaska's resources to the Aleuts and Creoles. In the process, Kashevarov revealed some otherwise little-known Russian policies towards the colony's environment and suggested some of their complex origins. Kashevarov's articles and the company's responses, still mostly untranslated into English (for one translation

see Dmytryshyn et al. 1989:518–524), shed valuable light on Alaska's environmental history, the RAC's conservation policies, and the history of Alaska Natives and hint at alternate paths not taken but that still seemed possible before the American sale. Despite uncertainty about Kashevarov's knowledge of Aleut and Creole culture, his articles also provide unique, if imperfect, documentary evidence concerning Aleut and Alutiiq conceptions of the RAC and Alaska's fur-bearing animals.

While historian Roxanne Easley (2010) has written insightfully about Kashevarov's Creole identity, scholars have not focused on Kashevarov's observations on the Alaska environment. His ideas, taken at least in part from Alaska Native environmental conceptions, acquire new relevance with contemporary attempts to recover and employ traditional ecological knowledge (TEK), particularly in Alaska

(Barnhardt and Kawagley 2005; Griffin 2009; Hunn et al. 2003). Such attempts have not been without controversy, with some ecologists “dismissive of the possibility that indigenous, traditional, and/or small-scale subsistence communities might conserve their natural resources” (Hunn et al. 2003:79). Others have claimed that little or no truly indigenous ecological knowledge remains (see Hunn et al. 2003). These conceptions have real-world consequences, as decisions about TEK’s validity affect management decisions (Hunn et al. 2003). Current fisheries policies in the Aleutian Islands, for example, have sometimes been made in ignorance or neglect of Aleut observations of their local ecologies (Reedy-Maschner 2010). As Kashevarov’s case demonstrates, though the terminology may now be different, divides in Alaska over TEK and access to resources are not new. The RAC, too, had deep doubts about the Aleuts’ and Creoles’¹ ability to effectively understand and manage their environment. The historical dimension of this divide is very little known, and Kashevarov’s articles provide a rare glimpse of what must have been much more substantial issues during the day-to-day administration of the colony (Mitchell 1997).

ALASKA CREOLE WITH A GLOBAL LIFE

Kashevarov’s relationship with the RAC and the depth of his knowledge about Aleut ecological conceptions and practices are uncertain. His globe-spanning life offers contradictory clues. Kashevarov was probably the son of a Creole mother, Aleksandra Petrovna Chechenova, and a Russian father, Filipp Artamonovich Kashevarov, an influential school teacher in the colonies. The young Kashevarov spent the first decade of his life on Kodiak, where he likely gained some knowledge of Aleut and Russian hunting practices. Kashevarov’s Russian biographer surmises that “from early years Aleksandr Filippovich observed in his house the unique combination of Russian and Aleut cultures, witnessing how his neighbors went to sea in light *baidars* to hunt sea animals” (Demin 2006:12). No documentary evidence backs these assertions, though they are reasonable given the centrality of the maritime hunt to Kodiak life. By 1818, Kashevarov’s father had been transferred to New Archangel (Sitka) (Pierce 1984:174), where Aleksandr Filippovich may have had further chances to learn about marine mammal hunting. In 1821 he was shipped off to Russia to enroll in the St. Petersburg Navigational School.

On the long journey there he rounded Cape Horn and docked at Rio de Janeiro and Copenhagen.

In St. Petersburg, Kashevarov attended the School of Navigation, along with other Creoles and Russians. He graduated in 1828, at the age of nineteen, having received broad training in several disciplines and qualified to be a senior navigator (Demin 2006; Records of the Russian-American Company [Records] 1828:CR 6 f. 326). That same year, Kashevarov was dispatched back to the colonies, for two years sailing a circuitous route to Alaska that exposed him to much of the Pacific Ocean. While on the RAC ship *Elena*, he stopped in Australia, met native Micronesians in the Marshall Islands, and made his first attempts at producing new maps on his own. In 1831 he again sailed around the world, this time on the company transport *Amerika*. Kashevarov again visited Australia and Brazil, while also sailing through Polynesia and Melanesia. Under the command of V. S. Khromchenko, the ship also undertook an in-depth study of the equatorial Gilbert Islands (Ivashintsov 1872). By the time he returned to the colonies in 1832, Kashevarov had seen a great deal of the world and of Russian and foreign cultures.

Kashevarov’s travels did not end with his return to Alaska. He spent 1833 to 1837 aboard various company boats; picking up cargoes of timber, furs, whale meat, and walrus tusks; training new navigators; and making hydrographic, geographic, and ethnographic observations around Kodiak Island, the Aleutian Islands, Bristol Bay, the Pribilofs, the Alexander Archipelago, and the Yukon Delta. In 1863, he was also involved in an attempt to apprehend Eskimos who had attacked the Russian settlement of Mikhailovskii Redoubt on the Yukon River, though he did not succeed (Bolkhovitinov 2005). In 1838, Kashevarov undertook pioneering explorations of Alaska’s Chukchi and Beaufort sea coastlines, keeping a journal that he later published in St. Petersburg (Kashevarov 1977). He also sometimes transported Aleut hunters to various hunting grounds. In 1835, Kashevarov sailed a fleet of Aleuts south to Fort Ross (today California), where he was to “find out how best to conduct the hunt” (Records, 1835:CS 12 f. 212), and in 1841 he carried sea otter hunters to Kamchatka and checked their prowess with rifles (Records, 1841:CS 20 f. 97). These were some of his best opportunities to observe the sea otter hunt since his childhood, though not in Aleut home waters.

All in all, Kashevarov spent what he described as “eleven years of service in the colonies” (Kashevarov 1862b:161)

before returning to Russia in 1844. He would later serve as commander of the Port of Ayan in eastern Siberia before retiring in St. Petersburg. While in Alaska, he dealt extensively with governors Wrangell and Etolin and also came into contact with New Archangel (Sitka) office manager Kirill Khlebnikov. These men played important roles in developing the RAC's policies regarding conservation and indigenous peoples. Wrangell would also contribute to the debate about Alaska's sale in the 1860s (Wrangell 1857). During these years Kashevarov rose in the estimation of colonial administrators, and he came to occupy a social position somewhere between Creole and full-blooded Russian, as evidenced by Wrangell's equivocation about whether his officer's rank freed him of typical Creole obligations (Records, 1835:CS 12 f. 157).

While in the company's estimation he was a trustworthy and highly competent employee, Kashevarov grew to dislike aspects of the RAC's administration, centered in New Archangel. In fact, a persistent note of resentment towards the colonial capital and defense of the more thoroughly indigenous parts of the colony come through in his writings. He criticized observers who wrote about Alaska from the perspective of New Archangel "and not from Kodiak (the center of the colony)" (Kashevarov 1862b:151). Kashevarov also claimed that the New Archangel administration was a colossal waste of funds, with "luxurious spending on the maintenance of a completely useless port" (Kashevarov 1861:19). These passages suggest not only resentment towards the mostly Russian (and Scandinavian) settlement but also an enduring loyalty to Kashevarov's home town and his mother's people. Kashevarov signed each of his articles "A Creole," likely an attempt to stress his identification with Russian America, as Easley (2010) notes. Of course, in deciding finally to settle in St. Petersburg, Kashevarov chose a path that took him far away from his early childhood and career.

By the 1860s, Kashevarov had been absent from the colonies for nearly two decades, and some of his ideas about company conservation policies seem to owe much more to the uncertain 1840s than to the better-regulated subsequent decades.² However, Kashevarov still retained a storehouse of useful knowledge. He had traveled widely throughout the North Pacific and observed sea otter, fur seal, and walrus hunting from Kamchatka to southeast Alaska. He had spoken with hunters about their practices and listened to their advice about where hunting would be best. He had also conferred with company administra-

tors, at times about hunting practices. Kashevarov himself obliquely implied that he had been interested in hunting and conservation, stating that while in the colonies he had never heard of the conservation schemes being mentioned by others in the 1860s (Kashevarov 1862b:157). Being a Creole gave Kashevarov access to both Russian and Alaska Native worlds, even as it kept him from being fully integrated into either. If by the 1860s Kashevarov's knowledge of company practices had become dated, and if he maintained some distance from most of the company's Alaska Native hunters, his broad experience gave him an informed view of sea-mammal hunting as practiced through the 1840s. There are few other contemporary records of such richness.

THE DECADE OF REFORMS

Kashevarov's unique dual ethnic and geographic standpoints became particularly powerful during Russia's "Age of Reforms," which included both the 1861 abolition of serfdom and the sale of Alaska six years later. Alaska, in fact, played a prominent role in the political turmoil of the time. As Easley (2010:1) writes, "Russian America, under the monopolistic authority of the Russian American Company since 1799, seemed to some a clear example of outmoded and ineffective imperial administration." Hunting policies were a central concern of the reformers. Grand Duke Konstantin, the principal agitator for colonial reform, proposed that all Russian subjects be allowed "to hunt furs and to trade, until now the exclusive right of the company" (Bolkhovitinov 1996:119). The oppression of Alaska Natives and the stifling of private commerce in the Pacific were also listed as significant problems, related to questions of conservation. Company officials, on the other hand, protested that the Alaska colonies were profitable, that the company saved the administration significant sums of money in defense, and that the well-being of Alaska Natives had improved immensely under the company's second two imperial charters. Furthermore, they claimed, opening Alaska up to free enterprise would mean the swift removal of Russians, who would be outcompeted by outsiders. "[F]oreigners will predominate there," they wrote, "until they exhaust all resources to their benefit" (Bolkhovitinov 1996:135), imperiling Russian control of Alaska altogether. One compromise would leave the RAC in control of the seashore and islands, while opening the



Figure 1. The May 1861 issue of *Morskoi Sbornik* [Naval Collection], the journal that played a key role in advocating liberal reforms and aired insiders' views.

interior to trade. The company again rebuffed these reforms, arguing that free interior trade would inevitably provoke hostilities with the Natives there (Bolkhovitinov 1996).

For a period of time, the question of Russian America's future entered the public arena, most prominently in the pages of *Morskoi Sbornik* (Fig. 1), one of the empire's most influential liberal periodicals. In general, the journal advocated economic liberalism and the well-being of Alaska Natives (Vinkovetsky 2011). Other like-minded journals, such as *Moskovskie Vedemosti* (*Moscow News*) and *Severnaya Pchela* (the *Northern Bee*), also contributed to the discussion. Thus, the internal affairs of the Alaska colony received a brief but illuminating airing in Russia's public press. In 1862, *Morskoi Sbornik* published the government's assessment of the Russian-American colonies in the form of Pavel N. Golovin's report of a tour taken through Alaska the previous year. Golovin's influential article advocated the retention of many of the company's colonies but criticized its failure to develop Alaska economically and its treatment of its Aleut subjects. Golovin felt, in particular, that the company's monopoly on landholding and on many industries should be abolished in order to waken the economic vitality of colonial citizens and other Russians who would be attracted to an Alaska open for exploitation (Golovin 1979:118). Aleuts should be freed of the ne-

cessity to hunt for the company, Golovin argued, but the RAC should retain the right to purchase all furs.

Golovin gave several reasons for his suggestions, but two would be crucial in the debate over environmental practices that would ensue. First, out of the ruins of the eighteenth-century private fur trade, the RAC had formed a wise and successful conservation policy. Gains were most apparent among sea otters and fur seals. As Golovin put it, by resting some hunting grounds, “the animals who are usually killed or frightened off in any given place will be allowed to multiply and calm down during a closed season. With this type of conservation it is possible to predict that they will never become depleted or permanently vanish from the shores of our islands” (Golovin 1979:78). Another commentator, former governor Arvid Etolin, drew a contrast with Kamchatka, where government control had seen the eradication of fur-bearing animals that contrasted poorly with the RAC’s flourishing Alaska (Dmytryshyn et al. 1989:528).

These men were quite right that the RAC had one of the nineteenth-century colonial world’s best-articulated and consistently managed conservation programs. Beginning in the first decade of the nineteenth century and intensifying after the 1820s, the Russian-American Company had begun regulating and limiting its catch of sea otters and fur seals. Evidence suggests their efforts were successful for fur seals, and their numbers stabilized throughout the 1850s and 1860s. Sea otter conservation was more complicated, for the animals displayed none of the convenient traits that made the fur seal cull relatively easy to regulate—sea otters did not frequently haul out on shore and separate by sex, nor were they polygamous. Therefore, it was extremely difficult to selectively kill sea otters; the only realistic measure for conserving the population was restraining the total hunt, though some Russians claimed the Aleuts could distinguish sea otters by sex at sea. What resulted was a mish-mash of different conservation strategies. In some places firearms were prohibited. Elsewhere, local administrators took on-the-spot, ad hoc decisions to shut down a particular hunt for several years. Sometimes these closures took on the appearance of a semipermanent state, especially when threats from Tlingit or others made hunting in these areas provocative anyway. Perhaps the most common strategy was rotational—sending out hunting parties to alternate locations each year, giving every sea otter ground a one- to two-year break. Conserving Alaska’s fur resources had been and would continue to be

crucial for Russian retention of the colony, whether under company or government rule (Arndt 2007; Jones in press).

Golovin’s second important point was that Aleuts needed the economic incentive provided by sea otter hunting in order to become responsible colonial citizens. Giving them the freedom not to hunt would be disastrous for Aleut motivation. In that scenario, Aleuts would:

be more willing to sit at home doing nothing until hunger forced them to seek some gain. Furthermore, hunting sea otters, for example, is possible only in groups; the Aleuts themselves would never organize parties, in fact they would not have means to do this if they were not supplied (Golovin 1979:80).

Also, Aleuts might just sell any animals they caught to foreign fur traders. “This would not only be a decisive blow to our colonial industry,” wrote Golovin (1979:80–81), “but the Aleuts themselves would ultimately be ruined.” Thus, Aleut, company, and imperial interests were in fact aligned, at least according to this official.

If Golovin’s assessment of the Aleuts seemed ungenerous, then his description of Alaska’s Creole class was vicious. They were entitled, overly proud, too sensitive, “inclined towards hooliganism, primitivism, dishonesty, and laziness,” and it was apparent to him that “up to the present time the creoles have not been of any use” (Golovin 1979:17). Kashevarov, as a Creole himself, felt compelled to respond to Golovin’s slanders and insistence on Aleuts’ inability to manage themselves. When Golovin then asked for Kashevarov’s impressions of his report, the Creole informed him that he disagreed with much of it. The two men then entered into a written debate, “so that in the *conflict of opinion*, as [Golovin] put it, we would *find the truth*” (Kashevarov 1862b:51; emphasis original). Golovin died suddenly, before Kashevarov could make public the full extent of his violent disagreement, and this caused the Creole to muzzle some of his anger. The Russian-American Company’s Board of Directors in St. Petersburg responded directly to Kashevarov in 1862. Even before Golovin’s report, Kashevarov had become a contributor to *Morskoi Sbornik*. In 1861 he published an article on “Unusual Meteorological Occurrences in the Bering Sea,” establishing his scientific credentials for the journal’s progressive readership. That same year he exchanged some heated articles with former RAC governor Semon Ivanovich Yanovsky, who held negative views of Creoles similar to Golovin’s. Together, these articles demonstrate

the centrality of conservation to Russia's American colonies and to those colonies' eventual sale. Additionally, they exposed deep rifts between Russian and Aleut/Creole understandings of marine mammal ecology and disagreements about proper management of the animals.

MARINE MAMMALS

In his articles, Kashevarov chose not to tackle Golovin and the RAC's aspersions head-on. Rather, he concentrated squarely on the question of sea mammal conservation. Kashevarov's key article for *Morskoi Sbornik* was entitled, "What is a *zapusk* [hunting closure]?" He explained this focus by stating:

Nearly all who have been writing about Russian America recently are agreed that the organization of Russia's distant possession in the New World demands fundamental transformation. However, at the same time, it is more or less clear there is some fear of the possibility of exterminating valuable fur-bearing animals (the principal wealth of the land) . . . if the natives are given the unrestricted right to hunt fur-bearing animals and use them as their own lawful property (Kashevarov 1862a:86).

These initial thoughts reveal two things about the sale debate. First, issues of conservation apparently played a much more important role in Russian discussions than historians have noted. Second, it reveals the extent to which conservation had come to occupy Alaska administrators' minds. They were proud of their accomplishments in this area and saw it as one of the principal issues that would decide the future of the colony.

At the heart of Kashevarov's concerns were the various proposals suggesting that the RAC give up its monopoly on hunting and fishing throughout its territories in Alaska. The RAC had responded to such suggestions by claiming that only their form of conservation could ensure the future of Russian control. The focal point of RAC conservation, as Kashevarov laid it out, was the *zapusk*, the "temporary suspension or lessening of hunting of some species of fur-bearing animals which have declined in numbers due to increased or long-standing catches . . . with the goal of letting it reproduce" (Kashevarov 1862a:86–87). Such measures could be and had been applied to sea otters, river otters, foxes, fur seals, and walruses. Kashevarov's purposes demanded that he question the success of the *zapusk* system.

Zapusks forged different outcomes for different species and different locations. For animals found on islands, such as foxes, Kashevarov claimed, *zapusks* were not hard to maintain. "With the ice-free sea all around them, without any way of leaving their islands . . . it is not hard to know both the time for a *zapusk* and the time when traps can again be set" (Kashevarov 1862a:87). Island populations were easy to monitor, as prey animals had no escape, and there was no possibility of in-migration. Thus, foxes were not part of the company's conservation problem. Fur seals and walruses presented, in some ways, similarly convenient ecologies, for they too were confined on or near islands in the sea for at least some of the year. Echoing a common observation in the colonies, Kashevarov described how fur seals were driven to a convenient place on the island, then killed with clubs "almost selectively and in the number possible and necessary" (Kashevarov 1862a:87). Other colonial officials described the fur seals almost as domestic cattle, so easy had they become to manage.

However, Kashevarov added two important qualifications to the idea that fur seal management represented an unqualified success for rational Russians. First, he introduced a note of doubt surrounding fur seal ecology:

By a mysterious law of nature, still not figured out, every summer the fur seals arrive from the south into the Bering Sea and reproduce on the Pribilof and Commander Islands. . . . It is possible that they spend the northern wintertime somewhere on the bottom of a warm sea, like bears who spend the winter doing nothing but sucking on their paws in a den (Kashevarov 1862a:88).

Thus, fur seals were not like domestic cattle, for they lived much of their lives mysteriously outside the sight of humans. In fact, Kashevarov revealed the full and continuing extent of Russian ignorance about the seemingly familiar animal, which certainly did not hibernate over the winter but instead ranged far south in search of food. Second, Kashevarov reminded readers that fur seal conservation was not an exclusively Russian matter. Fur seal population counts and reproductive estimates were based on a "long term observation of the age and reproductive increase of fur seals" made by the observant manager of St. Paul Island, the Creole Shaeshnikov, and the Aleuts long resident there (Kashevarov 1862a:87). This indigenous contribution formed the basis of the reproduction tables that the Russian Orthodox priest Ivan Veniaminov had put together to enable successful conservation by cal-

culating sustainable harvest numbers. Creoles and Aleuts, then, had provided integral service for the RAC's successful environmental policies, which, Kashevarov admitted, "had brought real benefit to our nation" (Kashevarov 1862a:88).

Even these fairly mild criticisms brought a harsh response from the company two months later. In an article entitled "Remarks of the Board of Directors of the Russian-American Company," the St. Petersburg directors asserted a much more positive environmental legacy than even Kashevarov had allowed. The Board of Directors (1862) wrote that "fur seals are killed *not almost* selectively, but with the strictest possible selection." While the Creole had granted that fur seal conservation was possible, the board asserted that it was wildly successful. Reports of stunning fur seal abundance, their continued colonization of new breeding grounds, and the possibility for increased hunting attested to the company's incomparable environmental management (Board of Directors 1862:1–2). As a second example, St. Petersburg noted the successes in the Pribilof Islands, where fur seals were increasing, but which had previously been uninhabited and controlled entirely by the company. In an "Answer to the Remarks of the Board of Directors," Kashevarov (1862b) disputed such reports of unqualified success in the Pribilofs. He noted that the numbers of fur seals taken from the islands were not nearly as high as they were during Veniaminov's time. He claimed there were considerably fewer fur seals there now, and that sea lions had declined to an even greater extent. Sea otters were entirely gone. Yet, "[b]efore the arrival of the Russians all of these animals lived and multiplied in peace" (Kashevarov 1862b:157).

If island fox and fur seal management constituted a qualified success—though not one entirely due to the company's insights or full mastery of the species—the conservation of mainland terrestrial fur bearers and sea otters appeared to Kashevarov to be impossible. His arguments for each were slightly different. Minks, weasels, and other land animals caused no worries, as they had lots of space into which they could escape and reproduce in peace. Beavers, however, presented some problems. In the 1860s the animals were becoming a more important part of Russian trade, and every year in the "inhospitable part of our land" many were being killed. Kashevarov had some experience in the inland fur trade, having visited Mikhailovskii Redoubt, helping to facilitate trade with the Alaska Natives there and tal-

lying the numbers of fur bearers traded (Bolkhovitinov 2005). Lavrenty Zagoskin, a Russian in naval service who had explored much of the Alaska interior in the 1840s, reported that new ways of hunting were causing serious problems. Especially around the Kuskokwim River, Russian hunters were destroying beaver lodges to get at their prey, a method that usually netted only the male, while the female and young were left homeless to perish without their pelts being collected. Hunters had also begun shooting beavers. According to long-standing Russian belief, firearms permanently frightened the animals away. Thus, rifles were not used in the sea otter hunt, and Zagoskin (1967) condemned the practice with beavers as well.³ Kashevarov, though, was much more pessimistic. He thought beaver conservation inherently impossible. "One cannot even think about creating *zapusks*," he wrote, as beavers are caught by "independent natives, who recognize no power over them besides custom and tradition handed down to them from their ancestors" (Kashevarov 1862a:88).

On one level, Kashevarov's claims that beaver conservation was impossible were practical. The RAC really had no authority in indigenous Alaska societies of the interior. On another level, though, the claims expressed Kashevarov's (and Russians') dislike of the loose organization of non-hierarchical, "primitive" societies. As government inspector S.A. Kostlivtsev remarked at the same time, the interior Alaskans were a "warlike and bloodthirsty people, who are hostile not only to Russians, but to all who intend to encroach on their independence" (Bolkhovitinov 1996:128). One also hears in Kashevarov's statements about interior Natives echoes of his earlier, more vicious depiction of the Eskimos he had encountered in the 1830s:

The life of the Eskimo, like that of other savages, proceeds regularly, monotonously, like a wound-up machine. He stays within bounds, within the cycle he follows: here now, tomorrow there, and all for the same reasons, for one and the same goal: to live like an animal, as his forefathers existed. He knows what his ancestors knew and acts in the same way as they did, inventing nothing, perfecting nothing, losing nothing. . . . Without convictions, guided in life only by experience, the savage is in unquestioning service to the customs of his ancestors (Kashevarov 1977:91, 92).

One could hardly think such custom-bound, machine- and animal-like humans might act with the forethought necessary to practice husbandry for the future. Kashevarov's

preferences for social progress would deeply influence his understanding of sea otter conservation as well.

Unwilling to concede any point, and full of righteous anger in defense of the company's pristine conservation record, the Board of Directors (1862) directly challenged Kashevarov's assertion that company conservation was impossible in interior Alaska. In fact, the former governor insisted, with the company's keen grasp of ecology, even here it had achieved successes. The key was to offer the independent Alaskans very low prices or refuse to buy pelts at all during times when fur bearers were known to be reproducing: "In this way the savages of necessity accustom themselves to following the general order" (1862:6). Such measures had already proven their success on the Alaska Peninsula, where animals were said within a year or two to have regained their former abundance, greatly benefiting Russia's indigenous subjects there (Board of Directors 1862:6). The Board of Directors' claims demonstrate both the RAC's preoccupation with conservation and its paternalistic readiness to force its schemes on unenlightened Alaska Natives. In this, the RAC differed little from the Hudson's Bay Company's policies in the Pacific Northwest. At around the same time, the British company was also despairing at Native Americans' unwillingness to adhere to conservation policies and attempting to manipulate prices in order to enforce compliance (Ray 1975).

THE PROBLEM OF SEA OTTERS

Thus far, the disagreement had revolved around differing estimations of the RAC's conservation success. When it came to sea otters, though, Kashevarov revealed that much deeper differences involving ecological conceptions were in play. One of Kashevarov's most important claims was that, in essence, sea otter ecology was too complex for the company to effectively manage. While the company thought in terms of raw numbers—fewer catches today would mean more tomorrow—Kashevarov thought in terms a modern wildlife ecologist might find more convincing. The Creole made the very reasonable point that sea otter catches depended on many factors besides the overall population. Among the most important of these factors was the availability of food, which Kashevarov (1862b) thought consisted of mollusks and seaweed. Stormy weather could reduce catches and make it look like conservation was not working, while unusually good weather might make sea otters look abundant and

encourage overhunting (Kashevarov 1862a). In addition, frequent earthquakes and volcanic activity added uncertainty to humans' impacts on sea otters. Volcanoes' "suffocating, stinking smoke and soot," which often spread far offshore, either killed the animals or forced them on one of their migrations, discussed below (Kashevarov 1862b). In fact, volcanic activity has been shown to have significantly affected sea otter distribution and abundance. For example, the 1964 Good Friday earthquake in the Gulf of Alaska displaced many sea otters (Black 1981). Sea otters that survived human persecution and natural disasters also grew "smart and careful" and became difficult to find, giving another false indication of their numbers (Kashevarov 1862a). Such complex ecology rendered conservation of the animals nearly impossible.

Sea otter migration, though, presented the greatest obstacle to effective conservation. Sea otters could not be counted on to be present at the same places every year. If sea otter food was scarce the animals might not return for several years, frustrating any attempt to determine whether their numbers were increasing or decreasing. For example, experienced hunters knew which sea otter "banks" (nearshore kelp beds) looked good in a given year and therefore would concentrate their hunting there while ostensibly resting other areas. However, Kashevarov (1862a:89) asked, could not the hunters actually be killing "the very same sea otters, that had, so to speak, migrated to this new place"? He was uncertain this was the case, but it seemed very possible that "resting" sea otters might actually mean that hunters were merely following them from place to place. Kashevarov found it persuasive that sea otters learned to flee human persecution and thus would not return to recently hunted locations. Citing Veniaminov liberally, he provided numerous examples of how sea otters "cannot, or better said, do not wish to live where humans disturb them...as soon as they sense the smallest sign of human presence, they begin to search for a new spot" (Kashevarov 1862b:156). Thanks to ubiquitous hunting, sea otter biogeography had changed, perhaps permanently. Now sea otters were only found far away from shore, in shallow seas, especially where seaweed grew. The animals only took to shore during winter storms. This unpredictability clouded the company's conservation's record. Kashevarov admitted that company policies had worked in the Atkha department, but in other places over twenty years of experience had yielded no real proof.

With this discussion, Kashevarov reopened the entire question of sea otter migration that had preoccupied earlier Russian observers, who had a very difficult time understanding the animals' oceanic movements. Kashevarov did at least provide a patina of sophistication to this uncertainty. Whereas earlier observers had postulated merely that sea otters fled persecution, Kashevarov pondered whether sea otters, like fur seals, regularly migrated. He claimed that at the beginning of June, when the RAC prohibited hunting, sea otters left Alaska waters for an unknown destination. When the Board of Directors questioned these migrations, Kashevarov cited a number of examples, predominantly in the Aleutian Islands, in which sea otters were seen during the summer but not during winter. Additionally, the Creole found it strange that most marine animals were known to migrate, yet observers still resisted the idea that sea otters did the same. The ecology of migration made intuitive sense, for the sea otters' food (including seaweed and small invertebrates) varied by season. As final proof, Kashevarov referenced his own experience. In July 1837, he was commissioned to take a hunting party from Ukamok (Chirikof) Island to Kodiak. However, upon arrival at Ukamok, he found that a number of the hunters had already left a week earlier, risking a dangerous *baidarka* voyage across open ocean. When Kashevarov asked why they had taken such a risky decision, the hunters answered that sea otters always left the area around that time, would not return that year, and thus the men had decided to leave immediately. At Three Saints Harbor, Kashevarov found that the hunters had in fact made it and also that they believed sea otter movements were tied to fluctuating abundance of seaweed and mollusks. His main informant was a man named Panfilov, "the Creole manager of Three Saints *artel'* [hunting band], an experienced sea otter hunter, and party leader," and thus an excellent source of indigenous ecological knowledge (Kashevarov 1862b:160).

Such migrations could potentially present terrible problems for the Russian colonies, because they exposed the animals to foreign hunting. What if American ships, which roved throughout the North Pacific, were to stumble upon the winter sea otter grounds? They would surely not show any moderation in the hunt, cutting into their numbers as they did those of whales elsewhere. Kashevarov may have meant this somewhat tongue-in-cheek, playing on the company's sometimes exaggerated fear of foreign poaching. In an earlier article (Kashevarov 1861), he had decried the RAC's refusal to allow an American whaler

to hunt in North Pacific waters. In that same article, he demonstrated a long-term opposition to the company's conservation policies, writing that "the imaginary fears of the Russian-American Company about the extermination (*istreblenie*) of fur seals on the islands of the Bering Sea by whalers has seriously harmed the development of hunting in Kamchatka together with the wellbeing of the region" (Kashevarov 1861:19).

The Board of Directors painted a much simpler picture of sea otter ecology than did Kashevarov. First, it dismissed the notion that sea otters migrated, "which [Kashevarov] of course could not have had the opportunity to see" (Board of Directors 1862:3). Nor had the board ever heard of anyone in the colonies who would agree that sea otters left the colonies at the end of July. They also claimed that sea otter dispersal had nothing to do with food, but had everything to do with the presence of humans with loud ships ("especially steamships"), firearms, and the working of the coal mines on the Kenai Peninsula. Drawing on the empire's Siberian and California experiences as well, the board gave the RAC's most complete statement on the colony's environmental history:

Isn't it so, that out of thousands of sea otters only hundreds have remained, and that this animal, especially such a lover of cleanliness and peace, has decreased not only because of hunting, but also because it does not breed when confronted with the least disturbance, and finally, isn't it so that an animal in general is annihilated by continual pursuit, as is proved by the scarcity of sables, foxes, and squirrels in Siberia and Kamchatka, and the complete destruction of sea otters in the straits and especially in California, where they abounded in countless numbers? (Board of Directors 1862:4).

In other words, sea otters reacted primarily to human disturbance and were very little affected by changes in the ecosystem. The very fact of massive sea otter decline proved this point: "the insufficiency of food cannot be a reason for sea otter migration, for these very same places used to feed thousands of sea otters. Why could they now only feed hundreds, when the growth of seaweed and the reproduction of mollusks have not changed?" (Board of Directors 1862:4). Such a simplified version of sea otter ecology argued for the promise of carefully managed hunting in Alaska.

In his response, Kashevarov (1862b:155) refused to abandon the idea of sea otter migration. "Isn't it the case," he asked, "that this breed of marine animal has the ability

to migrate from one place to another, even to a feeding ground previously unknown to it, and to swim such a significant distance, as for example...from Shumshu Island [in the Kuriles] to Copper Island...?" Multiple reports of new sea otter colonies appearing up and down the coast of Kamchatka and throughout the Kurile Islands seemed to confirm Kashevarov's claims. "From where, after a prolonged absence, did these sea otters reappear? Where had they been?" Kashevarov (1862b:155) asked. Additionally, he thought the board's claims of ecological stability proved nothing: "The former thousands of sea otters had their haunts along the whole vast extent of the shores of Russian America, where to this time the growth of seaweed and the reproductive increase of mollusks *have not changed*," and yet only hundreds of animals now remained (Kashevarov 1862b:155). Kashevarov's ecological claims here were obscure, but he hinted that Aleuts understood sea otter biology in subtler ways than did Russians, a topic Kashevarov would emphasize repeatedly.

Both sides' ideas remained far from the modern conception of the animal, though the board probably had the upper hand concerning migrations. Kashevarov's conceptions, however, exhibited a more complex accounting of a multitude of ecological factors. Even his admission that "this question is unresolved" (Kashevarov 1862b:159) resembled modern ecologists' uncertainties. In part, this sensitivity to complexity conveniently buttressed his main argument. As he concluded, many uncertainties and contradictions pervaded the company's conservation policies. The Atkha district, one of the colony's success stories, was in fact one of the few places where no systematic sea otter protection had been instituted. Furthermore, the measures undertaken had not been extended to the Kurile Islands, which threw the company's own faith in them into real question (Kashevarov 1862b). Of course, if the animals migrated as prolifically as locals and Kashevarov claimed, conservation success would be as elusive as a July sea otter anyway.

Clearly, Kashevarov and the board's ideas about sea otters diverged radically. What is less clear is how representative Kashevarov's ideas were of broader Aleut, Alutiiq, and Creole conceptions. The board believed that Kashevarov understood little about Alaska. "Presumably," they remarked sarcastically, "someone [Kashevarov] who both in print and orally proclaims himself to be specially acquainted with his homeland would not be prevented from knowing [the efficacy of the company's beaver conser-

vation]." Additionally, regarding the dangers of the walrus hunt, they accused him of letting "passion take precedence over truth" (Board of Directors 1862:6–7). Kashevarov claimed, though, that he was well informed, having paid attention to discussions of sea otter behavior in the colonies and in St. Petersburg (Kashevarov 1862b:159). Several of his statements, cited above, demonstrate that he had observed hunting taking place and had talked with indigenous hunters. Additionally, contemporary sources provide some confirmation that Kashevarov reflected continued traditions of ecological knowledge. Hank Eaton, a Kodiak Island elder interviewed in 1996, stated that nearby sea otters had "eaten all of the food so they're moving on to other grounds" (Alutiiq Cultural Atlas 1996:\$K59), suggesting that sea otter migration of some nature held an important place in local ecological conceptions. There is also a continued tradition of Aleut skepticism towards numbers-based conservation: "Management' of the environment and its resources is an absurd concept to many Aleutian fishermen" (Reedy-Maschner 2010:196). Such comparisons must of course be treated with caution, since Aleut and Alutiiq culture have undergone many changes since Kashevarov's era.

The best that can be said, perhaps, is that Kashevarov offers a glimpse of what must have been a sophisticated indigenous comprehension of sea otter ecology. It seems likely that the Alaska Natives hunting for the RAC thought sea otter numbers were closely tied to food availability, seasonality, volcanic activity, and human activity, and they may have understood the animal to undertake seasonal migrations. Wrangell, another keen observer of Native hunting, simply stated that the "Aleuts were familiar with the instincts of the sea otter and know where to find them" (Wrangell 1980:36). What seems clear is that Kashevarov and those he knew did not think there was a simple relationship between human hunting and sea otter numbers.

In fact, the RAC's comprehension of sea otter ecology may not, in practice, have been as distant from Native ideas as board insisted. A key idea of Alutiiq cosmology is the belief that each animal has a *sua* ("life force" or "its person"), and humans must take care to treat them respectfully or risk hunting failure (Crowell et al. 2001:163; Partnow 2001:51). Numerous RAC documents suggest that the Russian administrators were at least partly influenced by such ideas. Even the board's statements stressed that sea otters do "not breed with the least disturbance" (Board

of Directors 1862:4). More tellingly, in 1817, the French-German naturalist-scientist Adelbert von Chamisso, who was sailing with Captain Otto von Kotzebue, stopped at the Pribilof Islands and remarked:

Only thirty years ago sea otters were here in such abundance, that a man could catch from two to three hundred of them in an hour; but when these animals, which are accounted by the Aleutians as the most cunning, saw themselves so pursued, they suddenly vanished from these parts (Kotzebue 1821:177).

Here Chamisso stated explicitly that accounts of sea otters fleeing Russian persecution came at least partly from the Aleuts themselves. It was the animals' awareness of being hunted, much more than their numerous deaths, that explained poor hunting results. Veniaminov stressed something similar, noting that the reason sea otters had grown scarce was "not because they were hunted out, but because . . . they do not like to live where they are disturbed. The sea otters are as much exterminated as frightened away" (Veniaminov 1984:332).

WHO SHOULD OWN ALASKA?

Even if the RAC's on-the-ground conservation practices did not differ substantially from what Aleuts and Alutiit thought appropriate, the debate over environmental knowledge was not academic. The future of the colony was at stake; thus, Kashevarov and the Board of Directors also employed environmental ideas to make concrete arguments about the proper property relations in Alaska.

In this respect, Kashevarov steered the debate about the sale of Russian America beyond the parameters set by either the reformers or the company. In his estimation, Aleuts and Creoles could run the colony just fine themselves. Even in the context of increasingly liberal and favorable policies towards the Creole class, this was an audacious suggestion for the time. While the formation of the RAC may have ended some of the worst abuses against the Aleuts and Alutiit, the company's charters also strengthened and codified Native dispossession of the most important products in their lives. All fur-bearing animals became property of the RAC; any animal caught had to either be turned over to the company (if the hunter was on salary) or sold to it. Marine mammal products, such as whale meat or *baidarka* covers, could be bought from the company.

Now, in order to save the colony from "the possibility of exterminating the precious fur-bearing animals," Kashevarov (1862b:163) thought the time had come to entrust their hunting to those who knew them best. Aleuts, he claimed, possessed unique insights into the North Pacific environment that could circumvent the difficulties posed by marine mammal (especially sea otter) behavior. The proof was all around in Alaska. Kashevarov claimed that "*hundreds* of sea otters are found exclusively in those places where they are hunted *only* by Aleuts—conscientious [*dobrosovetnye*] masters of their trade" (Kashevarov 1862a:91; emphasis original). Aleuts managed the environment not through quantitative analysis or rigid rules, but rather through flexibility and instinct: "Creating *zapusks* at the right time, where necessary—this is the specialty of native hunters," wrote Kashevarov (1862a:91). According to him, Aleuts had always possessed such skills and maintained a natural proficiency and caution in hunting. In his strongest statement concerning Aleut relations with animals, Kashevarov wrote:

In this native and hereditary art [sea otter hunting], they have never adopted anything from others, and could not adopt anything. The Aleuts also understand very well the circumstance that if few sea otters appear on the sea, it will be a useless labor to go far out to sea to hunt (Kashevarov 1862b:162).

Aleuts, in other words, were not inclined to overhunt a region when all the signs pointed to sea otter decreases.

Preempting fears that the Aleuts' instincts might prove insufficient, Kashevarov also noted that there were simply not enough of them to eradicate marine mammals. "It is pointless to fear, that under the free hunting of marine mammals, undertaken by *local* hunters, that they would be exterminated—there is not enough local manpower in Russian America for that!" (Kashevarov 1862a:91; emphasis original). This mattered a great deal because Aleuts remained the only ones capable of hunting sea otters and thus were a limiting factor in the hunt. Foreign whalers, commonly cited as potential environmental robbers in the Pacific, were unlikely sea otter hunters. "They love to smoke and eat well," Kashevarov wrote, "they need a hearth and consequently fire and smoke, which Aleuts avoid during the entire time they are hunting, because sea otters, as I have already said, do not like smoke" (Kashevarov 1862a:91–92). Thus, Kashevarov formulated an interesting paradox—only Aleuts really understood sea otter ecology well enough both to kill and save them.

RAC administrators held rather dimmer views of Aleut environmental knowledge. Ex-governor Etolin, writing to the government, painted a dreary picture of Aleuts rendered helpless in the hostile North Pacific environment. Alaska, he claimed, was too dangerous for Aleuts to hunt alone, which they would have to do if the company withdrew its material support and organization. Additionally, “quite apart from the danger [of hunting individually] . . . the Aleuts often vanished without a trace” (Dmytryshyn et al. 1989:530). There were many cases, Etolin claimed, when rescuers “discovered entire families who had settled somewhere or other on distant headlands, all dead in their baraboras; every one of them poisoned from the foolish consumption of dead whale or toxic shellfish” (Dmytryshyn et al. 1989:530). Thus, in Etolin’s telling, Aleuts had lost entirely the ability to understand the Alaska environment.

Beyond the question of the Aleuts’ ecological knowledge and behavior, Kashevarov presented another argument: In the new Russia of freedom, these people also deserved control of their own resources. The freedom to hunt underpinned hopes Aleuts had for becoming modern, enlightened citizens like other post-emancipation Russians. This was especially true in relation to seals and sea lions, so important for Aleut domestic economy. “If he will not have the right to hunt *these marine animals* for himself,” wrote Kashevarov (1862a:90; emphasis original), “what can a free Aleut citizen do for himself without them?” Because of “climatic conditions,” the Aleuts had to have the products of such animals, as well as those of whales and walrus (Kashevarov 1862a:90). These claims mirrored Kashevarov’s assessment of Alaska Eskimos. That group of benighted savages “has learned to conquer and, through hard trials and experience . . . and everything he sees is almost certain to become his prey. He has raised himself to human status with these resources” (Kashevarov 1977:83). A stadial theory of cultural advancement through increased economic activity and market participation underlay Kashevarov’s prescriptions for indigenous hunters, both Eskimo and Aleut. Certainly, he was no proponent of returning Aleuts to precontact subsistence practices.

Though in concord with reformist ideas about the need to stimulate commerce, Kashevarov challenged some of their ideas as well. He came out against the suggestion of taxing fur-bearing animals, then being proposed as a way of paying for government administration of the colony (CSRAC 1863:261). Kashevarov (1862a:91) was

“completely convinced, that taxing [*zatrakhovat*] marine animals (except fur seals) is not at all called for and is useless. It is also somehow strange to deprive the inhabitants of a maritime colony of the right to freely use the products of his native sea, sent down to them by God for his prosperity!” In the face of such compelling environmental and legal arguments, the RAC’s continued monopoly could only appear monstrous. Closing with the rallying cry of the liberals, he wrote, “better *everything* or *nothing*” (Kashevarov 1862a:92; emphasis original).

The Board of Directors countered Kashevarov’s pleas for indigenous control of resources with a blunt insistence that Aleuts and Creoles were far too primitive to be entrusted with conservation. An earlier article by Yanovsky (1861:8) expressed this chauvinism: “The company of course does desire progress for the colonial natives (*urozhentsi kolonii*) no less than you [Kashevarov], but it must be said that it now looks with sorrow at its unfulfilled hopes.” Kashevarov himself, educated at company expense, served as an ungrateful example. He had not achieved “true nobility of the soul” but instead found recourse in “hackneyed liberal phrases and other similar means which will not lead down the road to progress, and will not bring the smallest benefit to your homeland” (Yanovsky 1861:8). Kashevarov’s goals “might bring some material gain to [him] personally, but not at all in moral terms.” Adopting a tone of personal attack not uncommon in their exchange, the ex-governor concluded the same article by stating, “For my part, I feel obliged to tell you my personal opinion about Creoles: Many of them are intelligent and moral, the rest are evil and ungrateful. I say this from experience” (Yanovsky 1861:8).⁴

Proof of this incivility lay in Russia’s Pacific subjects’ previous poor management of the hunt. In 1854, sea otters had appeared at Copper Island, in the Commander Islands off Kamchatka, for the first time in decades. The Board of Directors (1862:4) thought they had probably been frightened there from Kamchatka or the Kurile Islands by Siberians, “unfamiliar with the methods and order of the hunt.” When the Copper Island Aleuts saw the animals, they eagerly decided to hunt them, but the steady hand of the company held them back. Sea otters were now on the increase. *Zapusks* run according to company methods everywhere were coaxing depleted sea otter grounds back to life. Meanwhile, Creoles on Afognak and Unga, as well as Aleuts, “sometimes allow themselves to violate the established order and at their own behest

head for the sea otter breeding grounds in one or two baidarkas....Not able to hunt them with arrows, they shoot [the sea otters] with firearms” (Board of Directors 1862:4). Kashevarov admitted such accusations held some truth, but that they were not representative—“every family has its black sheep, and sometimes hunger drives Aleuts [to overhunt]” (Kashevarov 1862b:162).

Such breaches of order were for the Board of Directors ample proof of Aleut immaturity and even inability to understand their own self-interest. When the Creoles and Aleuts broke hunting protocol, they “did harm to themselves” (Board of Directors 1862:4). This paternalistic attitude permeated the company’s denial of Aleut rights to hunt animals for themselves. In fact, claimed the board, they already possessed rights sufficient to their well-being:

Sea lions and seals and all the products obtained from them really are essential and irreplaceable in native life, but it is well known that their products, or, better, the hunting of sea lions and seals is left entirely to the Aleuts. The Company only acquires them for its stockpile solely with the goal of assisting the Aleuts in satisfying their needs (Board of Directors 1862:4).

Golovin added, in his review of the Alaska colony, that Aleuts in fact had much control over their own hunting. “If the Aleuts go out to hunt not altogether willingly, at least they are not forced to do so,” he wrote with little apparent concern for self-contradiction (Golovin 1979:80).

The company had to control the animals because not all Alaskans could equally access these essential creatures, and only the company could ensure the overall well-being of Alaska. The Aleuts of Kodiak, Atka, and the Kurile Islands had special need for sea lions and seals, but were unable to catch enough for themselves and instead had to rely on imports from Unalaska and the Pribilof Islands (Fig. 2). Aleuts and others could not be expected to sail such long distances themselves. Further, foreign whalers lurked offshore, ready to plunder the islands given the first chance. Paradoxically, then, company control of sea lions, sea otters, and fur seals was absolutely essential for Aleut well-being. Whales too, were carefully husbanded by the company against future need. Thus, environmental catastrophe would have ensued had it not been for “the supervision of the company and the systematic management of the hunt...consequently, the company does not hamper the Aleuts even in this respect. Just the opposite; it helps

them and even ensures the fulfillment of their needs” (Board of Directors 1862:5).

The Board of Directors also raised a somewhat bizarre issue anticipating later arguments that deny indigenous peoples control of their resources when that use is not considered traditional. Because the Aleuts had no attachment to the Pribilofs—they had been forcibly transported there after the islands’ discovery around 1790—and because they lacked sailing vessels, the board predicted they would abandon the islands as quickly as possible if the company lost control. That would, of course, turn the islands’ animals over to the American whalers, who all could agree were the worst environmentalists in Alaska (Board of Directors 1862). Kashevarov countered that, in the interest of geopolitics, Aleuts and Creoles would be given “public” vessels with which to sail to the Pribilofs, harvest their resources, and protect them for the Russian empire. Such measures had been taken in other parts of the empire, after all, and they would help to integrate Alaskans into society (Kashevarov 1862b). The idea that Aleuts should be given access to Russian hunting technology flew in the face of the board’s conception of primitive Native people and fulfilled Kashevarov’s fondest dreams of advancing and modernizing Alaska Natives.

Finally, the Board of Directors thought that Alaska plans for conservation would shatter in the conflict between Creoles and Aleuts. “Will [the Aleuts] unite with the Creoles, the very same *promyshlenniki* [hunters], who for some reason, attributing more right to themselves, never willingly look out for the rights of the Aleuts?” The Creoles “in general do not respect the Aleuts and do not consider them equal to themselves” (Board of Directors 1862:7–8). Even if the Aleuts would agree to support *zapusks*, the Creoles would disrupt them. The proof was that the Creoles already were violating hunting restrictions, as they were using firearms in “sea otter breeding grounds” (Board of Directors 1862:7–8). Kashevarov recoiled at such slanders, noting that “such an opinion about the Christian native population of Russian America discredits the value of [the company’s] own administration, under whose guardianship we have been for over sixty years” (Kashevarov 1862b: 167). Whatever its reflection on the company, the Board of Directors insisted that the Aleuts’ unenlightened environmental conceptions and practices presented a grave threat to Alaska’s future and perhaps presaged violence. “Among the Aleuts the observation of delimitations in the conduct of the hunt will end,” they



Figure 2. Louis Choris, 1825. “Vue de l’île de St. Paul dans la mer de Kamtchatka (avec des lions marins)” / A View of the Island of St. Paul in the Kamchatka Sea (with sea lions). An Aleut hunter in the Pribilofs with an RAC ship anchored offshore. The RAC argued that the Aleuts had no attachment to the Pribilofs since they had been sent there on company orders. Courtesy John Carter Brown Library, Brown University.

wrote, “consequently there be an attempt to gain the rights of ownership—protecting this right will engender strife, with all of its fatal consequences. This is prevented only with difficulty even now, under the most vigilant supervision” (Board of Directors 1862:8).

CONCLUSION

Thus, alongside a number of other concerns around the potential sale of Alaska that have drawn the attention of scholars—security fears originating from the failures of the Crimean War, desire for a closer relationship with

the United States, anger at company mismanagement and treatment of Native peoples, and financial difficulties (Gibson 1987)—conservationist concerns also played a large role in the Russian debate. Fur-bearing animals had drawn Russians to the North Pacific in the first place; they were the basis for cooperation and conflict with indigenous peoples and for the Russian colonial economy for over one hundred years. The RAC saw its conservationist reforms of the nineteenth century as one of its most important innovations and legacies. No other issue, however, touched upon the well-being of its indigenous subjects as directly, and in this era of change the empire for the first

time heard directly how at least one Creole felt about the RAC's primary industry (Table 1). Kashevarov, it turned out, did not share much of the confidence of the company's directors.

Creole and Aleut ideas about fur-bearing animals, as Kashevarov represented them, did not take a shape entirely in accord with contemporary conceptions of TEK. First, some of Kashevarov's ideas about sea otter behavior were wrong. The animals do not normally or seasonally migrate over long distances, and in this argument the company was correct. Kashevarov's greater sensitivity to larger ecosystem factors, though, does resemble current Alutiiq and many other indigenous understandings. Second, Kashevarov's overall suspicion of conservation measures sits uneasily with some romantic ideas of indigenous "noble savages" (Krech 1999). Kashevarov seems to represent a broad, anticonservationist ethos then present among Alaska Natives, especially those subjected to Russian rule. Since Aleuts were never in fact given control over Alaska's fur resources, but instead shortly thereafter became debt peons to American traders (Partnow 2001), it is impossible to say what the environmental outcome of Kashevarov's plans would have been. A third, related point is that Kashevarov's demands, in opposition to visions of indigenous premodern sensibilities, were decisively pro-capitalist. The debate over Alaska's future ironically pitted

imperial statesmen and indigenous peoples mostly in favor of a free market in furs against a trading company opposed to free trade. The RAC fused a conservative Russian anti-capitalist ethos with the monopolist motivations of colonial business enterprises in the tradition of England's East India Company (Vinkovetsky 2011). Meanwhile, Kashevarov advocated simultaneously respect for traditional Aleut environmental knowledge and a headfirst dash into a modern, property-based economy. Kashevarov himself expressed these ultimately unresolved tensions in an anguished plea: "We [Creoles and Aleuts] are people just like everyone else. If we don't know foreign ways, we know our own very well, and understand that, for the perfection of our own lives, we have to see much, learn and imitate new, useful things from others. Just let it be that others can be fair with us" (Kashevarov 1862b:167).

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Table 1. Summary of disagreements between Kashevarov and the Russian-American Company.

Kashevarov	Russian-American Company
Fur seal conservation is done <i>almost</i> without problem and shows qualified success.	Fur seals are essentially perfectly managed and their numbers are increasing rapidly.
Conservation of inland beavers is impossible.	Conservation of inland beavers can be managed by manipulating purchase prices from and to Alaska Natives.
Sea otter conservation is impossible because their ecology is complex.	Sea otter conservation has demonstrated success.
Knowledge of fur seal and sea otter ecology is very spotty.	The company understands fur seal behavior very well and sea otter ecology reasonably well.
Fur seal and sea otter migrations are mysterious.	Sea otters do not migrate.
Creoles and Aleuts contribute in significant ways to conservation ideas and practices.	Creoles and Aleuts do not understand the Alaska environment.
Creoles and Aleuts are the best managers of Alaska's fur resources, using instinct and flexible hunting strategies.	Creoles and Aleuts are not capable of responsibly managing Alaska's animals, as they will fight among themselves and sell out to foreigners.
Creoles and Aleuts deserve to control the resources of their own land in order to become full citizens of Russia.	Creoles and Aleuts have already disappointed hopes of their becoming civilized; their existing rights are sufficient.

ENDNOTES

1. By the mid-nineteenth century, Russian sources grouped both Aleuts and Alutiit into one category, "Aleuts." This usage will be followed in this article, though the preferred ethnonym for Aleutian Islanders is Unangan. "Creoles" were the products of Russian unions with Alaska Natives.
2. I am indebted to Katherine Arndt for this observation.
3. I am indebted to Kenneth Pratt for pointing me towards Zagoskin's remarks.
4. For what it is worth, *Morskoi Sbornik*'s editors rallied to the defense of Kashevarov. In a follow-up article, the journal decried with disgust the Board of Directors' attempts "to accuse this Creole of ingratitude, lack of understanding, and ignorance of the issue, to allude to his origin, to say that he does not understand 'progress, which is based on nobility of soul,' and [to say that] he wants to advance his material interests through slander and distortion of facts" (Anonymous 1861:9).

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THE RUSSIAN ORTHODOX MISSION AND PRIEST-MONK AFANASII'S "SECRET," 1824–1826

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ABSTRACT

The objectives of the Russian-American Company (RAC) and the Russian Orthodox Church in Alaska often conflicted, creating political tensions on both sides of the Bering Sea. An 1826 report by priest-monk Afanasii that was critical of RAC actions on Kodiak epitomizes the conflict. This incident highlights both the economic priorities of the RAC and the church's concern for the well-being of its adherents.

The Russian Orthodox Church has had a tremendous influence on the course of Alaska history. During the Russian-American period, it influenced the daily life of the Natives of Alaska—their languages, customs and traditions. The church remains very important to Alaska Natives to this day. Presently scholars use multi-disciplinary approaches to research the history and heritage of Russian America (e.g., Petrov et al. 2011), producing a number of works both in Russian and English. In 2010, Metropolitan Kliment (Kapalin) published a fundamental volume on the development of Orthodoxy in Alaska since 1794. He is presently planning to translate it from Russian into English. New and interesting documents on this subject have been collected by Alexander Petrov and priest-monk Makary over the last two years. This essay is based on some of those documents.

The first mission to Alaska from Valaam Monastery, Karelia (consisting of six monks and four novices), departed from Moscow on January 22, 1794, and arrived in Kodiak on September 24 to establish the new era of Christianity in America. From this original group, which “has a tremendous history” (Kapalin 2010:21–97), only Afanasii and Herman remained by 1824. In many respects, 1824 was a crucial year for the North Pacific Russian colony. The period from 1818 to A.A. Baranov's dismissal by Russian naval officer Hagemeister in 1824 was a difficult one for inhabitants of Russian America. The colony

was facing starvation due to a food supply shortage and, to complicate matters, the Russian-American Company (RAC) wasn't allowed to trade with foreign ships between 1820 and 1824.

These were also difficult years for the Russian spiritual mission in Alaska. There weren't enough priests to go around at the time, and those who were active tended to be rather old. By 1823, when most of them had passed away or gone back to Russia, the mission had all but stopped (Gregory 1990:292).

This serious situation was the subject of a special discussion in which the directors of the RAC, Minister of Finance E.F. Kankrin, and P.S. Meshcherskii, Chief Prosecutor of the Holy Synod, took part (Sokolov 1824). Having received letters from America and from St. Petersburg regarding the situation in Alaska, His Grace Mikhail, the bishop of Irkutsk, Nerchinsk, Iakutsk, and Cavalier, decided to support the spiritual mission by all possible means. In the autumn of 1823 and spring 1824, the spiritual mission in Russian America received reinforcements in the persons of Fathers Ioann Veniaminov and Frumentii Mordovskii.

On July 8, 1824, the ship *Ruirik* set sail for Unalashka. Father Ioann Veniaminov, the future “Apostle of America,” was on board. During his nine-month stay in Novo-Arkhangel'sk [Sitka] he managed to gain the respect of Matvei I. Murav'ev, who was a captain in the Russian

navy and the territory's general manager from 1820–1825. Murav'ev (1824) wrote of the young priest: "It would be impossible to wish for a person of greater moral character, such knowledge, noble bearing, and with such dedication to his duties for this region than father Ioann."

Father Ioann's parish consisted of sixty islands on the border of the Bering Sea and the Pacific Ocean, the largest of which was Unalashka. Here he found ten small villages. There was no church on Unalashka, only a half-ruined chapel. He began his missionary activity by constructing a church. He was an excellent carpenter and mason, and in gaining the respect of the locals, managed to draw them into the construction effort (Veniaminov 1997:60–64). In a letter to Kyrill T. Khlebnikov, head of the RAC's Novo-Arkhangel'sk office, Father Ioann wrote: "I am pleased with my present situation, insofar as I am healthy, and could be happy, at peace, well-off, and content" (Dridzo and Kinzhalov 1994:157–158).

On January 27, 1824, Murav'ev sent the ship *Kiakhta*, under the command of Prokopii S. Tumanin, to Kodiak with a load of wheat (Tumanin 1825). The priest Frumentii Mordovskii was on board to be a priest in Kodiak. The situation in Kodiak had been the topic of discussion in the Holy Synod on September 23, 1824. The result was a decree stating that creoles who were "educated and with excellent moral character" could serve in the church as sextons (Murav'ev 1825a). The Holy Synod even authorized service without requiring travel to Irkutsk to receive the blessing of Bishop Mikhail, due to the hardship and time needed to travel the thousands of miles from Kodiak to Irkutsk (Sokolov 1824). Father Frumentii was supposed to have occupied his position in Kodiak the previous fall but, due to his illness, he and his family were allowed to postpone their departure with a rest stop in Novo-Arkhangel'sk (Murav'ev 1825b).

During the winter of 1825, Murav'ev was ailing, but continued to work in spite of his ill health. He busied himself with church affairs such as sending orders to his officers regarding the decree of the Holy Synod allowing creoles to wear the *sticharion*, an Orthodox liturgical garment. For example, in the Saint Arkhistratig Mikhail church in Novo-Arkhangel'sk, the creole Nikolai Chichenev (Chechenev; Chichenoff) was ordained as a *prichetnik*, a server for a priest, with an annual salary of 250 rubles.

The news Murav'ev received in Novo-Arkhangel'sk from Kodiak and Unalashka islands in the spring of 1825 was both good and bad. The troubling news came from Kodiak. Father Frumentii, together with Nikiforov, the

head of the Kodiak office of the RAC, went on a special inspection expedition to Spruce Island where monk Herman lived as a hermit. Herman had not visited Kodiak in many years, though Spruce Island is only about a mile away. He was reportedly operating an orphanage and had religious adherents living in the vicinity. At least one woman, Sophia Vlasov, was helping with the children at the orphanage. Herman didn't socialize with the people in Kodiak, as they made fun of him, although he had visited when Baranov was there. Father Frumentii, arriving at the hermit's cabin and finding a number of liturgical items worth thousands of rubles, took an inventory of Herman's possessions. Herman was then sent to Kodiak.

The situation in Unalashka was rather better. Ioann Veniaminov had settled in the old government house and had managed to present himself not only as a capable jack-of-all-trades but also as a very humble man. Murav'ev wrote, "the deeds of Father Frumentii from Kodiak have convinced me of the comparative superiority of Father Ioann" (Murav'ev 1825c:264).

While Murav'ev was happy with the activity of Veniaminov, he was worried by Father Frumentii's actions, since the RAC general manager had a great deal of respect for the monk Herman. Further, Murav'ev discovered that Father Frumentii, on his own initiative, had sent priest-monk Afanasii to Irkutsk. Murav'ev decided, however, not to take sanctions against the priest, fearing he may have been acting on directives from the bishop in Irkutsk or even the Holy Synod. Instead, Murav'ev sent to the RAC headquarters for special instructions.

As it turned out, Father Frumentii *did* have authority to send Afanasii to Russia (Afonsky 1977:43). It would perhaps be unfair to view Father Frumentii's actions solely in light of Murav'ev's comments. Father Frumentii was very much a man of his time and did his best to fulfill his role in the Orthodox mission as he understood it. In the end, his actions encouraged the government to pay closer attention and give greater care to the Orthodox Church in America.

Priest-monk Afanasii's return to Russia included an unexpected and unpleasant incident for the RAC. The 68-year-old priest-monk presented a detailed report to the bishop upon arriving in Irkutsk. He described "his 33-year service for the American mission and indicated that he had a secret [about the RAC] he was willing to disclose only to the Holy Synod," located in St. Petersburg (Holy Synod 1826:2). The Irkutsk office of the RAC began doing all in its power to prevent Afanasii from sharing his

secret. “[R]est in a monastery hospital” was suggested for Afanasii, who had just returned from an exhausting mission; Afanasii was also encouraged to tell his secret by letter, rather than in person. Bishop Mikhail asked Afanasii to stay in Irkutsk, while the RAC issued him an annual pension of 200 rubles (Kapalin 2010:91–92). Priest-monk Afanasii, however, was insistent that he reveal his secret to the Holy Synod. Eventually news of the affair reached St. Petersburg, and Afanasii was granted access to the synod and permission to return to Valaam Monastery.

In Moscow on September 3, 1826, priest-monk Afanasii revealed to the synod that for some time the RAC had been sending hunters from Kodiak and other territories out on trips lasting eleven or more years. As a result of the lack of spiritual guidance and separation from their wives and children, Afanasii claimed the men were drifting away from their faith. Further, the population had begun to decline due to the men’s prolonged absence. Afanasii asserted that there had once been as many as 7,000 Christians in Kodiak, but that by 1826 there were less than 4,000. According to Afanasii, fur hunters should be separated from their wives for no more than one year (Holy Synod 1826:1–3).

The priest-monk’s accusations against the RAC were a serious matter. On October 20, 1826, the synod’s chief prosecutor, Prince Petr S. Meshcherskii, sent a request to Minister of Finance Kankrin, asking him to settle the matter. By that time, the RAC had a great deal of experience dealing with such grievances. For example, in 1797 Father Makarii had gone to St. Petersburg to present a list of complaints about the RAC to Russian Emperor Paul I. The synod took no action, and Father Makarii was sent back to America with an admonishment from the Holy Synod not to leave his post without authorization and to cease complaining, as it was unbecoming in a priest. In the detailed response to Afanasii’s “secret,” the directors of the RAC demonstrated their respect for the Russian Orthodox mission and presented their understanding of the situation:

There is only monk Herman left from the spiritual mission, and he himself lives as a hermit. At present, [most clergymen have] been replaced by the white [secular] clergy which are providing better correspondence concerning the circumstances of the area, because while administering the rituals of the Church, the white clergy can lead with a good example of home life (Kankrin 1826:8).

The RAC directors in St. Petersburg were unsure whether Afanasii’s claim that the hunters had been sepa-

rated from their families for ten years or more was well founded. This was the first time since the company had been founded in 1799 that its agents met with criticism from its own directors. From RAC headquarters, Minister of Finance Kankrin wrote:

without insulting the memory of the Honorable [Grigorii I.] Shelikhov [the RAC’s “honorary” founder], it may be noted that he may not quite have accurately estimated the population of Kodiak, indeed, that he may have exaggerated it in order to lend greater importance to his new discovery, so to speak, his conquest. The clergy, following this reasoning, in a very forgivable mistake, increased the number of new converts to Christianity (Kankrin 1826:8).

The letter concluded, “during the last five years, the population [of Kodiak] had not diminished.” Priest-monk Afanasii did not pursue the matter and returned to Valaam Monastery, where he passed away in 1831 at the age of 74. He was interred in the monastery cemetery (Vinokurov 1937:120). In his book, Metropolitan Kliment (Kapalin 2010) described priest-monk Afanasii as sick both mentally and physically.

The events of 1824–1826 described above are but a glimpse of the Orthodox mission’s activity in Alaska. The spread of the Russian Orthodox Church in America is inseparable from the history of Russian America and the RAC, which is in turn tied to world history. Events in the domestic and international arenas had a tremendous impact on the activity of the RAC, while “Orthodoxy, in the form of the Orthodox Church, was following in the footsteps of the Russian-American Company” (Gregory 1990:291–292).

As Russia’s first monopolistic privately held joint stock company, the RAC, under the protection of His Imperial Majesty, was trying to both profit and protect its flanks. The Orthodox Church, while economically and financially dependent upon the “Golikov-Shelikhov” Company (1794–1799) and later the RAC (1799–1867), saw its mission as transcending the business interests of the companies. The intent of the church was, and is, to give spiritual guidance and enlightenment to every individual regardless of nationality, ethnicity, economic position, and citizenship. Its doors were open to all. The differences between the Orthodox and RAC approaches to conditions in Alaska are clearly evident in the case of priest-monks Makarii (1797) and Afanasii (1825–26) (Petrov 2000:105–108). The actions of the Orthodox clergy in America were

seen as inflexible, even disloyal, from the perspective of the RAC. Yet, a limited number of clergy, working thousands of miles from home, brought Christianity to another world. The mission in America reached its apex in the work of Ioann Veniaminov, later St. Innocent, who brought to his teaching “patience and... a complete lack of any kind of force.” Innocent had “no use for seeking praise from people, no reason or purpose for pretense before others” (Gregory 1990:297; cf. Garrett 1979:327).

Many sources are available on the Russian Orthodox mission in Russian America. These documents, however, are scattered in different depositories throughout Russia and the United States. Bringing them all together is crucial to presenting a complete history of the era.

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RUSSIAN OCCUPATION OF ST. MATTHEW AND HALL ISLANDS, ALASKA: EXCAVATION RESULTS FROM THE 2012 ARCHAEOLOGICAL INVESTIGATION

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ABSTRACT

St. Matthew and Hall islands are located in the Bering Sea, far from the Alaska mainland. The islands are uninhabited and seldom visited due to their relatively isolated position, lack of resources desired for development, and their status as part of a National Wildlife Refuge. St. Matthew and Hall islands are two of three islands that make up the Bering Sea unit of the Alaska Maritime National Wildlife Refuge, managed by the U.S. Fish and Wildlife Service (USFWS). First discovered by the Russians between 1764 and 1766, little attempt was made to occupy or utilize these islands until 1809 when a fur-hunting expedition was sent to St. Matthew. In 2012, the USFWS attempted to locate the site of the 1809–1810 Russian hunting camp. Archaeological investigations focused on two sites: a previously recorded historic cabin site on St. Matthew and an unverified location on Hall Island. This report summarizes the findings of the 2012 archaeological investigation as they relate to the Russian use of these islands.

Research is formalized curiosity. It is looking and prying with a purpose.—Zora Neale Hurston

INTRODUCTION

St. Matthew and Hall islands are located in the Bering Sea, far from the Alaska mainland. The islands are both uninhabited and seldom visited due to their relatively isolated position, lack of resources desired for development, and their status as part of a national bird sanctuary. St. Matthew and Hall islands are two of three islands that make up the Bering Sea unit of the Alaska Maritime National Wildlife Refuge, managed by the U.S. Fish and Wildlife Service (USFWS). The other island within this unit is Pinnacle Island. The St. Matthew group is located approximately 266 km (165 mi) west of Nunivak Island, 322 km (200 mi) south of St. Lawrence Island, and 370 km (230 mi) north of the Pribilof Islands.

In order to obtain current data on the condition of the islands' fauna and flora, the USFWS has sent a team

of biologists to St. Matthew and Hall islands about once every five years. The usual duration of each visit is ten days. In 2012, the author accompanied the USFWS' interdisciplinary team of scientists. Archaeological efforts focused on conducting excavations at a late Thule site on St. Matthew Island and at two sites possibly related to an early nineteenth-century Russian hunting expedition. These sites include an earlier hypothesized fox trapping cabin near the northeast end of St. Matthew Island and a reported site on Hall Island. This article summarizes the information known about the Russian expedition prior to 2012, the effort taken in 2012 to locate any camp(s) associated with it, and recommendations for future research.

ENVIRONMENTAL SETTING

St. Matthew Island (Fig. 1), also known as Bear Island by whalers (Dall 1870:249), as Gore Island by Captain Cook (*Harper's Weekly* 1875:1; Maynard 1898:306), and as St. Matwey or Choris Island by other explorers (e.g., Kotzebue 1821:294), measures approximately 51 km long (32 mi) x 5.6 km wide (3.5 mi) and comprises a total of 332 km² (128 mi²) of land. The island's terrain is generally hilly with prominent peaks and a series of ridges rising over 305 m (1,001 ft) above sea level. Sea-formed cliffs about the island ridges and provide nesting areas for a wide variety of seabirds. Elevation on the island ranges from sea level to 459 m (1,506 ft) at Cape Upright.

Hall Island is located 5.6 km (3.5 mi) northwest of St. Matthew, measures approximately 8 km long (5 mi) x 4 km wide (2.5 mi), and is dominated by towering cliffs, with the highest peak reaching 490 m (1,610 ft). A small stretch of beach on the southeast end of the island provides the only suitable landing area for boats. According to

early Russian explorers, Hall Island was known as Ostrov Morzhovoy (Walrus Island) (Teben'kov [1852] 1981: Map 20) or Ostrov Sindsha, probably for Lt. Synd, its alleged discoverer. Commodore Joseph Billings of the Imperial Russian Navy and Lt. Gavriil Sarychev are known to have anchored between Hall and St. Matthew islands on July 14, 1791. The former has been called "Hall" on American maps since 1875, presumably for a Lt. Robert Hall, who served with Captain Billings.

Adjacent to St. Matthew and Hall islands is Pinnacle Island, which is located 15 km (9.3 mi) south of Sugarloaf Mountain on St. Matthew. It measures 2.41 km (1.5 mi) x 1 km (0.6 mi). Historic accounts (Elliott 1881) report that Pinnacle Island was the site of volcanic activity in the late 1800s. These islands have been described as the most remote area in Alaska (Rozell 2012).

Numerous valleys with many small streams, ponds, and lakes dissect St. Matthew Island. Vegetation is dominated by low-growing arctic tundra plants and is quite lush in lowland areas. As elevation increases, the flora becomes

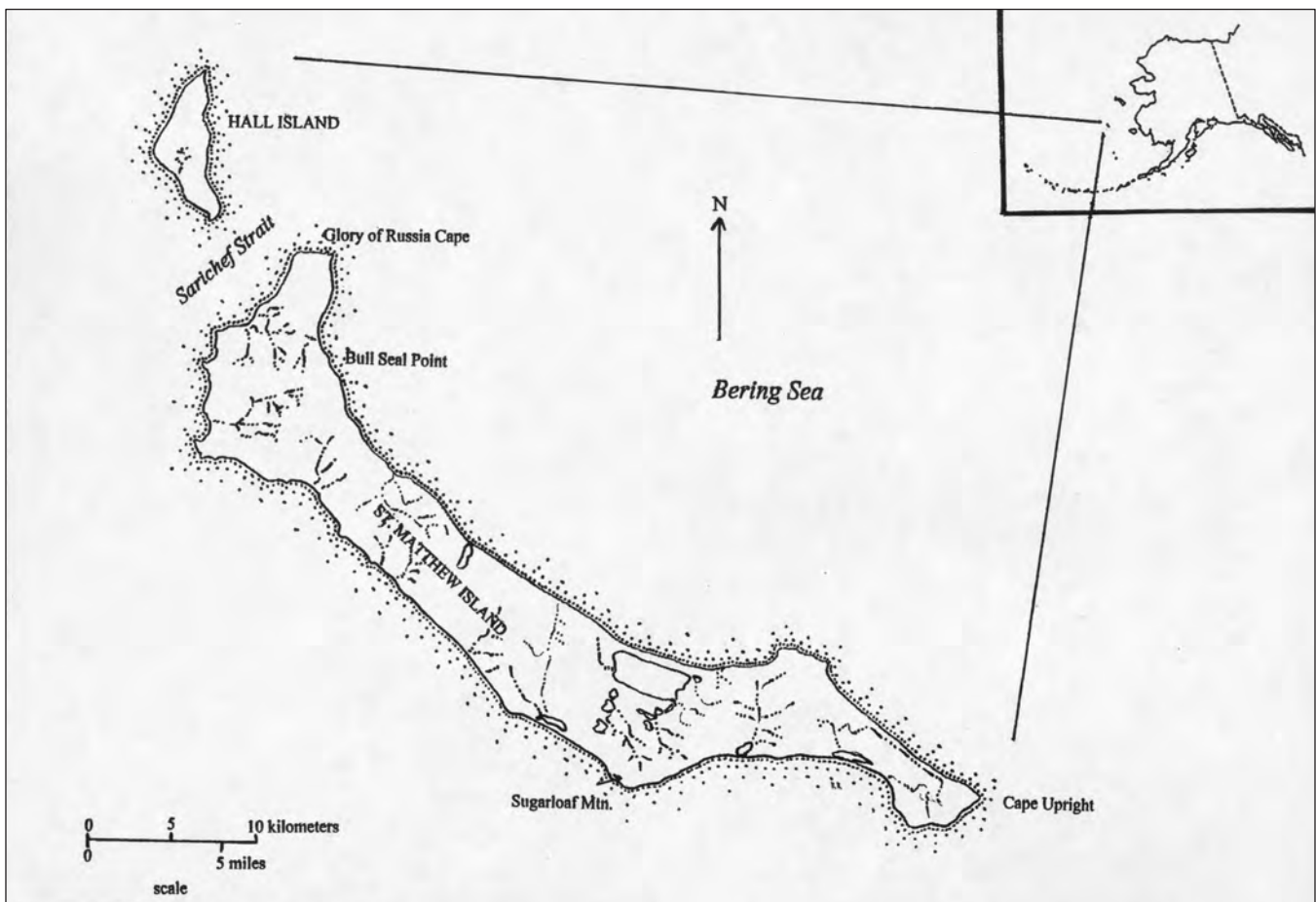


Figure 1. Project area map.

sparse and is replaced by rock scree dominated by lichens. Hall Island's vegetation is similar.

The mean annual temperature in these islands is 3.2 °C (37.9 °F) and precipitation 38.8 cm (15.3 in) per year. St. Matthew is probably the southern limit of winter pack ice in this part of the Bering Sea and is surrounded by ice for approximately seven months of the year and generally enveloped by fog the remaining five months (Stockton 1890).

Fauna indigenous to both St. Matthew and Hall islands originally included many terrestrial mammals (arctic fox and, at least in modern times, an occasional red fox) and marine mammals (polar bear, Steller sea lions, walrus, largha or spotted seal) that were actively harvested elsewhere in Alaska. Polar bears were once year-round residents of St. Matthew and Hall islands with populations of 250–300 estimated in 1874 (Elliott 1886). Bears continued to live year-round on these islands until the 1890s, with the last recorded observation by a party from the revenue cutter *Corwin*, which shot sixteen (Hanna 1920:122). Polar bears still occasionally visit the islands during the winter months (two bear sightings were made during the winter of 1942–1943 by military personnel on St. Matthew [Playdon, pers. comm., in Rausch and Rausch 1968:73]); however, the last sighting on the island was in 1982 when the remains of a bear that had recently been killed in an avalanche were found (Klein and Sowls 2011:433). There have been undocumented reports in more recent years of an occasional polar bear in the summer on St. Matthew. Bear trails made during the days when bears were once plentiful can still be seen on the island.

The Bering Sea National Wildlife Refuge was created in 1909 to protect its large breeding bird populations. Over one million seabirds and six other passerine and shorebird species commonly breed on St. Matthew and Hall islands (DeGange and Sowls 1978:22; Winker et al. 2002). Seabirds present that are harvested elsewhere in the Arctic include pelagic cormorants (*Phalacrocorax pelagicus*), Pallas's or thick-billed murre (*Uria lomvia*), least and crested auklets (genus *Aethia*), and tufted and horned puffins (genus *Fratercula*). Waterfowl include arctic and red-throated loons (genus *Gavia*), ducks (pintail, tufted, long-tailed, and harlequin), and eiders (common, king, and Steller's). Four species of freshwater fish in island lakes and streams on St. Matthew include trout, two species of sticklebacks (Gasterosteidae), and blackfish (*Dallia pectoralis*).

A botanist accompanied the 2012 field crew to the refuge to compile a detailed list of island flora. While this list is forthcoming (Romano et al. 2013), the St. Matthew Island flora is similar to that on Nunivak Island, the closest inhabited land to the refuge, and to mainland Alaska. Many indigenous plants important to Yupik and Inupiaq people in this region (Griffin 2001; Nuniwarmiut Taqnelluit n.d.) are also present on St. Matthew and Hall islands. They include plants useful as food, medicine, and utilitarian purposes (e.g., roseroot, saxifrage, marsh marigold, crowberry, nagoonberry, sorrel, wooly lousewort, cottongrass, fireweed, stinkweed, willow, sourdock, field horsetail, wild rye grass, monkshood, sedges, mosses, and lichen).

St. Matthew and Hall islands offered many species of terrestrial and marine mammals, birds, fish, and plants that could have been utilized by humans. To date, evidence of land use prior to the islands' "discovery" by the Russians only includes the location of a single house pit (XSM-001) on the northwestern end of St. Matthew Island that was occupied by Inuit people approximately three hundred years ago (Griffin 2013).

HISTORICAL BACKGROUND

HISTORIC EXPLORATION

St. Matthew Island was first documented by Lt. Synd of the Russian Navy during his explorations in the Arctic from 1764–1768. Coxe (1803:300) reproduced a chart from Synd's journal that depicts "I. Apost. Matthei" (St. Matthew Island). While the location plotted for St. Matthew is southwest of its true position, this is the first known reference to its existence. Captain Cook was next to reach St. Matthew when he noted the island on July 29, 1778. Cook believed that he was the first to discover the island and named it Gore Island (Cook 1842:347; Maynard 1898:306). Exploration of the island slowly followed with a number of ships stopping off and making observations of the island's flora and fauna.

The best historical description of St. Matthew Island and its resources can be found in Khlebnikov's (1994) *Notes on Russian America*, compiled sometime during the 1820s but not published until 1994. While it is unclear if Khlebnikov ever visited St. Matthew Island himself, he was able to obtain much information from a hunter, I. Arkhimandritov, who spent time on St. Matthew from the fall of 1809 to the summer of 1810. Khlebnikov

(1994:311) remarked that winter begins on St. Matthew by the middle of October, with cold winds coming predominantly from the north. The island is ice-locked from December until April. Spring begins in April, but the weather remains damp with thick fog so that summer is not really noticeable. Local plants described by the Russians on St. Matthew (Sv. Matvei) included edible roots such as bistort (*Polygonum viviparum* or *P. bistorta*; Russ. *makarsha*); a carrot-like plant; a potato-like plant found growing in the low-lying tundra; cloudberry; and crowberries.

Descriptions of the animals, fish, and invertebrates noted during his overwintering expedition included those from land (i.e., polar bear and white and blue arctic foxes) and sea (walrus, cod, halibut, sculpin, whales, sea urchin, shellfish), and locally available birds (e.g., murre, cormorant, horned puffin, tufted puffin, sea gull, crow).

According to Khlebnikov (1994:136, 314), Alexander Baranov, head of the Russian-American Company, directed district manager Emel'ian Larionov¹ in 1803 to send an *artel*² to St. Matthew. Baranov had instructed Larionov to send fifteen Russian and Unangan (Aleut) people from the Pribilofs to St. Matthew Island to hunt, but for some reason this directive was never followed. Not until after Fedor Burenin took over as the manager of the Russian-American Company was a party sent to St. Matthew. In 1809, Burenin had twenty Russians under the supervision of *baidarschik* (hunting boss or leader) Kulikov sent to St. Matthew where they were to spend the winter hunting. It is not known how many *baidarkas* (skin-covered kayaks that could hold one to two people) or *baidaras* (open skin or wooden boats that could hold up to forty people) were available to the crew, which could indicate how many camps it established. Reportedly, due to poor organization, Kulikov and more than half of his men suffered from scurvy and died of it. Arkhimandritov assumed leadership of the hunting party following Kulikov's death, and the remaining men returned to Unalaska in 1810. According to Arkhimandritov, they were able to obtain "a goodly number of arctic fox on the island as well as walrus tusks and bear skins" (Khlebnikov 1994:314).

Litke (1987:116–117) echoed Khlebnikov's account of the 1809 expedition, while other historical accounts provide slightly different dates, numbers, and scenarios. Kotzebue (1821:294–295) stated that the men found themselves abandoned by the animals they intended to hunt with all members of the party starving but three hunters who prolonged their lives by eating a "poor clay"

that they had discovered. Elliott (1886:465, 1898:191) stated that five Russians and seven Unangan from St. Paul Island in the Pribilofs passed the winter of 1810–1811 on St. Matthew where they had been dropped off to collect polar bear furs. Four of the Russians are reported to have died of scurvy. Dall (1870:248, 326) wrote that the Russians who were left on St. Matthew by the company to collect sealskins all starved to death due to the disappearance of sea mammals.

While it is unclear how many Russian or Unangan hunters overwintered on St. Matthew Island, at the time of the expedition, the Russian-American Company was actively relocating Unangan from Unalaska to the Pribilof Islands (200 persons were sent there in 1810 [Khlebnikov 1994:140]), so it is likely that Unangan from Unalaska or the Russians' Pribilof camp served as hunters on Kulikov's crew as well.

Following the departure of the Russian hunters in 1810 there is no documentary evidence of the Russians ever attempting to settle or hunt on St. Matthew again. Additional historical accounts were not written until after the 1867 purchase of the Alaska Territory by the United States. Undoubtedly, possessing fresh water in the middle of the Bering Sea made the St. Matthew group attractive to both exploration and whaling ships that plied these waters. Large numbers of polar bears may have been attractive as sources of fresh meat and a deterrent to remaining on the islands for any length of time.

Rausch and Rausch (1968) compiled a detailed history of early visits to St. Matthew. A summary of these contacts is outlined in Table 1. The following discussion focuses on island explorations that related to Russian exploration and evidence for the 1809 camp(s).

Henry Elliott and Lieutenant W. Maynard, special agents of the U.S. government, visited St. Matthew in 1874 while reporting on the Pribilof Island seal rookeries. Upon Elliott's (1898:191) and Maynard's (1898:306) arrival, they found the island overrun by polar bears. Elliott (1886:464) stated that during his brief visit he must have observed no less than 250 or 300 bears. "During the nine days that we were surveying this island, we never were one moment, while on land, out of sight of a bear or bears; their white forms in the distance always answered to our search, though they ran from our immediate presence with the greatest celerity" (Elliott 1881:116). Sixteen bears were seen leaving one spot on Hall Island when Elliott and Maynard's ship made a landing. The bears were said to have been attracted to the walrus herds.

Elliott's party killed several of the bears while visiting the island; he stated that polar bear steaks were of "excellent quality" (Elliott 1881:116). Hunting of polar bears apparently became a popular sport among whaling and coastal vessels, with historical records often noting the killing of a large number of bears. The incremental effect of this increased hunting on the local bear population resulted in a general reduction in number. The Revenue Steamer *Corwin* (Healy 1887) reported that polar bears remained numerous on the islands in 1886; however, the U.S.S. *Thetis* reported in 1889 that, in spite of a lengthy search of the island, they could find no evidence of polar bears (Stockton 1890:175).

Elliott (1898:191) noted finding the "ruins of the huts which had been occupied by this unfortunate and discomfited party of [Russian] fur hunters who were landed there to secure polar bears in the depth of winter." While he made no mention of exactly where these "huts" were, he and Maynard added their location to their map of observed island features; however, this map was lost following their voyage and could not be included with their subsequent reports (Elliott 1881:115). A copy of Elliott and Maynard's 1875 map (Fig. 2) was found fortuitously just prior to the 2012 expedition. This map helped to confirm the location of the huts earlier noted by Elliott.³

Prior to the discovery of the map from the Elliott and Maynard expedition, there was some question as to

Table 1. Explorations of St. Matthew Island, Alaska.

Explorer/Expedition	Date	Purpose of Visit	Reference
Lt. Synd	1764 or 1766	European discovery of island	Coxe 1803:264–265, 300; Teben'kov [1852]1981:39
Captain James Cook	July 29, September 23, 1778	"discovery" of island	Cook 1842:327, 347
Billings Expedition	July 14, 1791	biological observations	Sauer 1802:234–236; Sarychev 1807
Russian and Unangan trappers from St. Paul	Winter 1809 or 1810	hunt polar bear for fur	Dall 1870:248, 326; Elliott 1886:465; Chamisso in Kotzebue 1821:294
Capt. F. P. Litke and Seniavin	1827	general observations	Kittlitz 1858:300; Litke 1987:116–117
H. W. Elliott and W. Maynard	August 1874	exploration, observations of flora and fauna	Elliott 1882; Maynard 1898
Two overwintering hunting parties	before 1891	hunt polar bear and fox for fur	<i>Dallas Morning News</i> 1892
Overwintering hunting party from sealing schooner <i>Mattie T. Dyer</i>	1891–1892	hunt polar bear and fox for fur	<i>Baltimore Sun</i> 1892; <i>San Francisco Morning Call</i> 1892
Two unnamed trappers	Winter 1912–1913	fox trapping	Hanna 1920:12
G. Dallas Hanna	1916	avifauna observations	Hanna 1920
USFWS	26 June–27 July 1977, May–August 1982, July 1997, July 2002, July 2007	observations of island fauna and flora	DeGange and Sowls 1978; Rhode 1987; Sowls et al. 1978
USFWS	1981	weather station erected on St. Matthew and several temporary navigation aids	USFWS 1983:8, 30
Lisa Frink	18–26 July 1997	investigate human occupation on western end of island	Frink 2000; Frink et al. 2001
Dennis Griffin and Debbie Steen	21 July–1 August 2002	investigate human occupation on eastern end of island	Griffin 2002, 2004
Dennis Griffin	30 July–6 August 2012	investigate human occupation on western end of St. Matthew and Hall islands	Griffin 2013

whether the Russian-Unangan “huts” were built on St. Matthew Island, Hall Island, or both. Modern researchers (i.e., Frink 2000; Klein pers. comm. 2002; Sowls pers. comm. 2002) had earlier considered a large rectangular mound located near the northeast end of St. Matthew (XSM-002) to have been the site of the earlier Russian occupation (Fig. 3). Hanna (1920) reported that the remains of a Russian hut were identified by his party on Hall Island in 1916. Evidence of a Hall Island structure had also been noted by Klein and Faye in 1963 when they reported a single timbered structure located on the top of a dry ridge above the island’s only beach access area. This structure measured approximately 15 ft. x 20 ft. (4.6 m x 6 m) and was made from timbers that they thought had been brought to the island (i.e., not driftwood). Hanna (1920:121) reported that during the Russian occupation, a party of five men from St. Paul Island landed on Hall

Island where they built a cabin. This party later had to leave the island due to marauding polar bears. There is little doubt that this later account references the 1809 expedition, but here the reason for the party’s departure is polar bears, rather than illness. The reported reason for the departure of the expedition may have been influenced more by late nineteenth-century accounts of hunting parties being killed by polar bears (e.g., *Dallas Morning News* 1892) than by actual information relating to the Russians. According to Arkhimandritov (Khlebnikov 1994:311), polar bears were not known to attack people, except in cases of extreme hunger or when wounded.

On Maynard and Elliott’s 1875 map, two sites were labeled “ruins.” Both sites were believed by the authors to represent the Russian-Unangan “huts” built during their winter sojourn of 1809. Looking at their map today it is clear that one of the “ruins” represents the prehistoric

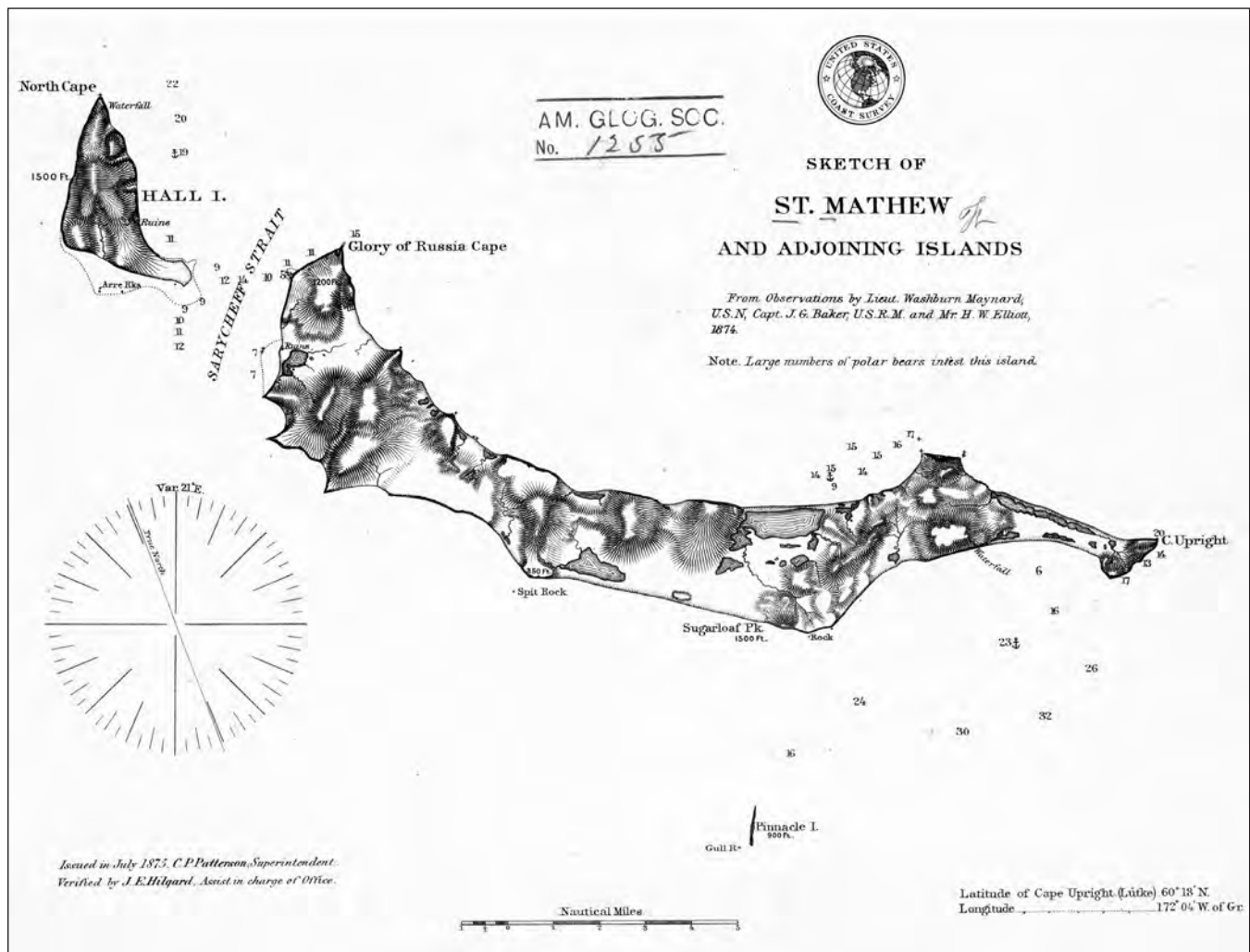


Figure 2. Elliot and Maynard 1875 map of St. Matthew and Hall Islands. Courtesy of NOAA and American Geographical Society Library, Milwaukee, WI, Rare Maps, Chart CS Alaska, digital ID# am005597.



Figure 3. XSM-002, a possible Russian house site on St. Matthew Island.

house recorded by Frink in 1997 (XSM-001). The second “ruins” located on Hall Island may be the location of the Russian occupation noted by Hanna (1920). Whether this was the only location used by the hunters is unknown. Excavations during the 2012 investigations tested all three of the locations (i.e., prehistoric Inuit house, reported Hall Island Russian site, and possible St. Matthew Russian site) to determine their dates of origin.

Archaeological sites on both St. Matthew and Hall islands were afforded unexpected protection by their incorporation into the National Wildlife Refuge system. The islands were recognized by the United States government for their abundance of seabird colonies and were set aside on February 27, 1909, (Executive Order 1037) by President Theodore Roosevelt as a bird refuge known as the Bering Sea Reservation (Hanna 1920:118). Its name was changed to Bering Sea Refuge in 1940. In 1970, the area was added to the nation’s wilderness system (Public Law 91-504) and is now referred to as the Bering Sea

Wilderness. The inclusion of St. Matthew and Hall islands into the U.S. refuge system undoubtedly protected them from later exploitation and settlement. Aside from use by the military during World War II (1942–1943 as an Army weather station and 1943–1945 as a Coast Guard radar station) both islands have rarely been visited and any archaeological sites that exist there are believed to have been left largely undisturbed.

NINETEENTH-CENTURY OCCUPATION OF ST. MATTHEW AND HALL ISLANDS

One objective of the 2012 archaeological investigation of St. Matthew and Hall islands was to locate and test the site(s) of the 1809–1810 Russian expedition. In order to be sure of the connection of the tested sites to the Russian expedition, it is important to understand the context for other sites that may exist on the islands. Such sites may relate to historical fur trapping or may have

been built by survivors of shipwrecks. These scenarios are described below along with their relation to St. Matthew and Hall islands.

FOX TRAPPING

The primary attraction of the Arctic to the Russians was the availability of furs for their home market, with sea otters and fur seals being the focus of most expeditions. The opportunity to harvest fox fur was also recognized early. Arctic foxes are indigenous only in the Arctic and on islands in the Bering Sea that are accessible from the mainland across the ice during the winter (Bailey 1993:2–3). Given the high price of fox furs in the Arctic from the early 1900s to 1930, people began to exploit native populations of foxes on the Alaska mainland and offshore islands. These efforts involved mainland people establishing extensive lines of fox traps throughout the Seward Peninsula and Yukon-Kuskokwim Delta and a few on Nunivak Island. In addition, some individuals turned their eyes toward other Bering Sea islands. Due to the restrictions in Alaska on hunting sea otters and fur seals, by 1913 fox furs had become very fashionable and the price for pelts rose. During the 1920s, the Alaska fur-farming industry grew very rapidly. By 1928, fur production had become the third largest industry in Alaska, surpassed only by mining and fishing (Bailey 1993:11). The popularity of fox furs did not last, and during the 1930s there was a sharp decline in fur prices.

Fox trapping occurred throughout the winter, but the most efficient time for trapping was between May and early June when adult fox populations were the lowest. On St. Matthew Island, there was no known Native population that could assist in the harvest of fox furs. Arctic foxes and, occasionally, red foxes (Sauer 1802:236; 2002 personal observations of author) live on the island. Fox hunters from Nome and the Alaska mainland apparently frequented St. Matthew during the early twentieth century, but little information on these early endeavors is known aside from their occasional mention in newspaper accounts (Art Sows, pers. comm. 2002), historical accounts (Beals 1944; Hanna 1920:121; Hunt 1975; unpublished trapper journals from 1912–1913 in Rhode 1987), and the discovery of a number of abandoned fox-trapping cabins throughout St. Matthew. The success or failure of these early trapping attempts remains largely unknown; additional information on the trappers and their harvest tallies needs to be collected.

During the winter of 1912–1913, two trappers are reported to have lived on St. Matthew, where they kept a journal of their efforts to trap arctic foxes. In 1920, the journal was in the possession of the Coast Guard Service in Washington, D.C. (Hanna 1920:121) with sources reporting that the trappers' success ranged from "almost worthless" to "considerable success." Also during the winter of 1912–1913, Max Gottschalk, a legendary and unscrupulous trapper from Nome, overwintered on St. Matthew along with two other trappers (Hunt 1975:258–260). Gottschalk's efforts "yielded rich results" with arctic foxes and other fur bearers. Later efforts to trap foxes on St. Matthew are substantiated by the large number of historic cabins seen on St. Matthew. Klein (pers. comm. September 10, 2002) recorded the location of numerous fox-trapping structures on the island (Fig. 4); however, the ages of these structures are unknown. Klein believed that many of them represented substantial cabins used by trappers, while others were temporary small structures only large enough for a man to sleep in. Temporary structures tended to be located along St. Matthew's west coast and could have served as overnight shelter for trappers following their trap lines or perhaps later for World War II military personnel.

In addition to these later cabin sites, several late nineteenth-century newspaper accounts document the existence of structures built on St. Matthew by hunting parties who were dropped off by sealing vessels to overwinter. Early newspaper accounts (e.g., *Baltimore Sun* 1892) relate the abandonment of three hunters on St. Matthew by the *Mattie T. Dyer* in 1891, with one surviving to be rescued by the *Bear* during the summer of 1892⁴ (*San Francisco Morning Call* 1892:7). Another newspaper article (*Dallas Morning News* 1892:1) recounts that two prior parties of "Indian" hunters had been left by ships to overwinter on St. Matthew but that all of these hunters were devoured by polar bears. Each hunting party would have built a cabin to use for the winter, the remains of which could be represented by some of the cabin sites noted by Klein. The difficulty is in dating these historic structures. Cabin remains found on St. Matthew and Hall islands may also represent the efforts of shipwreck survivors.

SHIPWRECKS

In reviewing the Alaska shipwreck records of the Bureau of Ocean Energy Management (Burwell 2011; Tornfelt and Burwell 1992), I have noted that only one

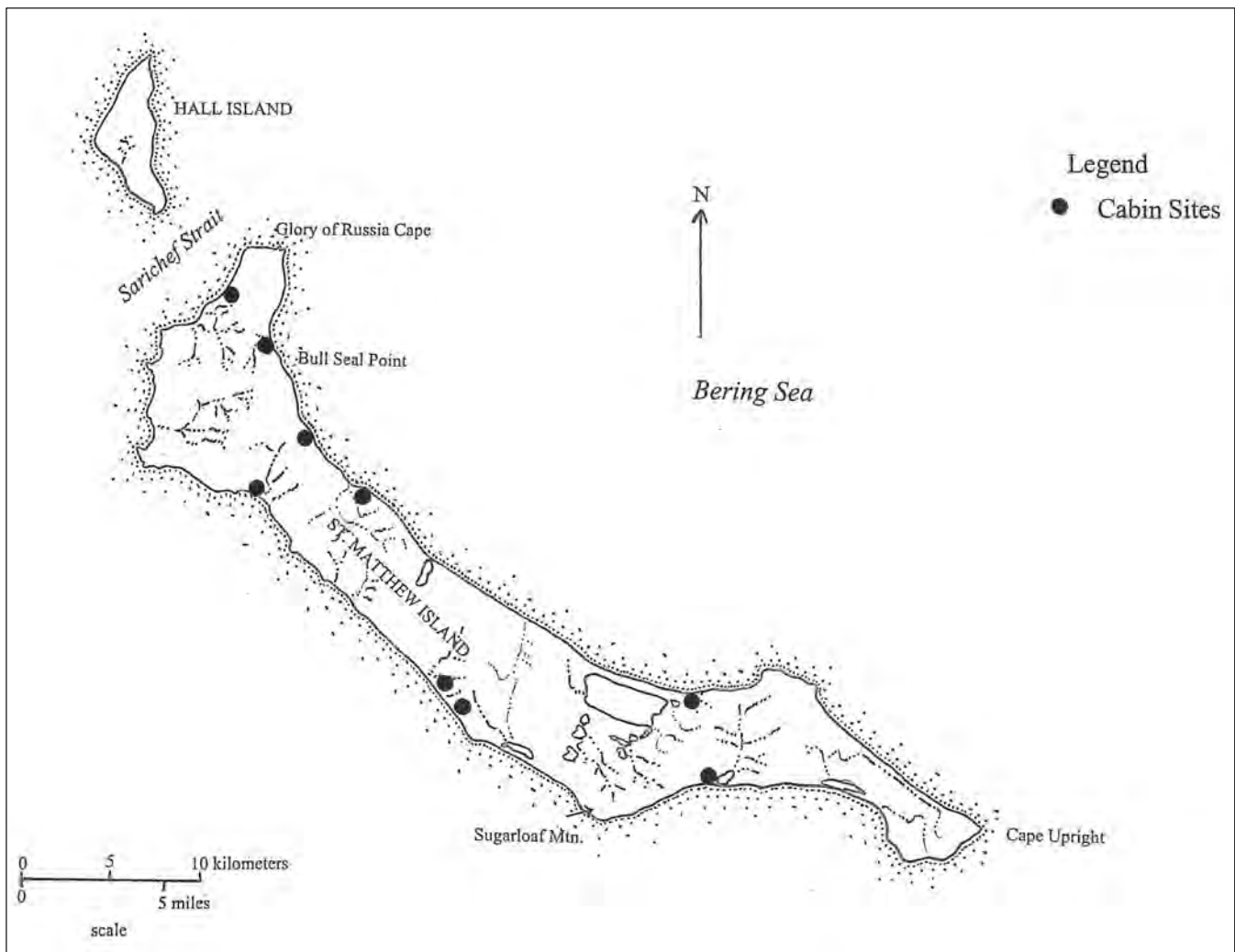


Figure 4. Fox-trapping cabin sites as recorded by David Klein. Original in possession of the author.

nineteenth-century ship is reported to have wrecked near St. Matthew, the schooner *Forward* that sank June 3, 1856, approximately 75 miles to the west (*New Orleans Times-Picayune* 1856; *Sacramento Daily Union* 1856). It is not known if this wreck had any survivors. In 1916, the *Great Bear* journeyed to St. Matthew to rescue the inhabitants of another unnamed shipwreck⁵ (*Seattle Daily Times* 1916) and wrecked off Pinnacle Island, seven miles from St. Matthew's southwest coast. The shipwrecked crew established a camp on St. Matthew's southwest shore, where the Coast Guard Cutter *McCullough* rescued the crew eighteen days later. A photograph of the survivors' camp (*Popular Mechanics* 1916) shows a series of tents, rather than a cabin.

The possibility that other ships have wrecked near St. Matthew is quite high, as the island provided a rare opportunity to stop for fresh water or supplies (e.g., polar bear meat). In an era of newspapers reporting on ships in the Arctic (late nineteenth and early twentieth centu-

ries), a number of ships had evidently become locked in the ice surrounding St. Matthew but all of them managed to escape with the ships intact (e.g., *William Baylies* May 2, 1907; U.S.R.C. *Unalga* June 11, 1916). Crews of other ships may have found themselves in the same predicament but may have not been so fortunate to escape. Shipwreck survivors may have constructed cabins on the island while awaiting rescue. No mention of such rescues has yet been found, but any survivors would have had to deal with the resident polar bear population.

PREVIOUS ARCHAEOLOGICAL EXCAVATION RESULTS

Prior to 2012, archaeological investigations on St. Matthew Island were extremely limited, with no studies occurring on Hall Island. Those on St. Matthew focused on general opportunistic surveys and recording of sites. The first informal cultural resource investigation

on the island occurred in 1957, when David Klein conducted limited testing of a house-like depression (XSM-001) located at the northwest end of St. Matthew Island. Klein was a biologist with the USFWS and conducted the testing as a favor for Frederick Hadley West from the University of Alaska Fairbanks (UAF). Klein's efforts verified the existence of an Inuit house through the recovery of Thule pottery. The first professional cultural resource investigation on the island occurred in 1976, led by E. James Dixon from the University of Alaska Fairbanks. This investigation was directed toward identifying evidence of early Pleistocene occupation of the island (Dixon 1976; Dixon, et al. 1986), but yielded negative results. Following this effort, the USFWS began inviting professional archaeologists to join their crew of biologists who attempted to visit St. Matthew and Hall islands about once every five years to conduct bird and mammal population surveys. Archaeologist Lisa Frink accompanied the biologists to the northwest end of St. Matthew in 1997 and conducted a survey along the northern and eastern shorelines. Frink (1997, 2000; Frink et al. 2001) identified and conducted limited testing of four sites during her ten-day survey, including the prehistoric semisubterranean house that had been tested earlier by Klein (XSM-001) and three historic cabin sites. One of these cabin sites (XSM-002) was later believed by some to be the site of the 1809 Russian expedition camp. In 2002, Griffin and Debbie Steen spent ten days surveying the southern third of St. Matthew Island, locating six historic sites. Five sites related to the island's World War II military occupation, with the sixth site (XSM-006) a structure probably related to fox trapping (Griffin 2002, 2004).

In an effort to locate and verify the camp(s) established by the 1809 Russian hunting party, the 2012 archaeological investigations focused on Hall Island, which had never been visited by an archaeologist, and revisiting sites XSM-002 and XSM-006 on St. Matthew.

2012 EXCAVATIONS

Archaeological investigations in 2012 were limited by personnel restrictions (only one archaeologist was part of the crew) and weather constraints; the 2012 field crew was only able to spend six days working on the islands. Aside from three biologists stationed on Hall Island, expedition members were dropped off on St. Matthew Island where the majority of fieldwork took place. Of the six days allot-

ted for archaeological fieldwork, three were spent excavating at the prehistoric house site (XSM-001) and one day at XSM-002. Toward the end of the trip I was fortunate to spend five hours visiting Hall Island, where I was able to locate and test the earlier reported cabin site (XSM-011). I also briefly revisited site XSM-006 in order to collect wrought-iron spikes in order to identify particular periods of occupation. The following describes the results of the 2012 testing efforts at these three sites.

XSM-011

During the end of the 2012 expedition, we tried to locate the house depression on Hall Island noted by Elliott and Maynard in 1874 and by Hanna (1920) in 1916, which they believed was related to the 1809–1810 Russian expedition. Only one area at the southeast end of the island is suitable for watercraft landing. This area is where the periodic USFWS camps are established and is also the site of a historic walrus haul-out area. Above this beach on a high terrace is reportedly the location of the earlier noted depression. With the help of several biologists, survey transects were conducted (Fig. 5), but initially no sign of the structure was encountered, until I recalled the words of Oregon's Coquille tribal elder Don Ivy, "a good place to live is a good place to live." I returned to the location where two bird biologists had their tents pitched to examine the surrounding area in more detail. Directly east of their camping area was a large grassy mound somewhat rectangular in shape. The mound measured 9 x 8.5 m with a height varying from 0.4 m along the north and east sides to 0.7 m to the south and with no visible berm to the west. Orientation of the long axis was 68°. If this was the site of an earlier structure, given the absence of a berm, the opening to the house would likely have been on the southwestern face.

Khlebnikov (1994) stated twenty people were sent to St. Matthew Island in 1809 to overwinter. Other accounts mention a smaller crew size (e.g., twelve by Elliott [1886]; five by Hanna [1920]). The single house identified on Hall Island is likely too small for twenty men to overwinter. The crew size would need to be much smaller or, conversely, other winter camps would need to have been established on St. Matthew to house some of the crew.

Within the grassy berm, a rectangular outline could be made out measuring 5 (78°) x 3.5 m. Depth was difficult to distinguish due to the heavy grass cover, but it was not pronounced. A 1 x 1 m test unit was placed near



Figure 5. Overview of XSM-011 looking north. Arrows indicate house depression and rock pile. Photo: Marc Romano.

the southern end of the depression. Below a thick sod layer, a very dark-brown clay loam was found. The clay was pushed through quarter-inch screen mesh with great difficulty. Level 1 (0–10 cm below surface) revealed little more than the sod layer that covered the entire feature. Level 2 (10–20 cm below surface) revealed a number of driftwood log fragments that may be from a collapsed roof or benches within the buried structure. Not until excavations within Level 3 (20–30 cm below surface) were finishing could the makeup of the feature be ascertained. By 27 cm below surface the remains of a milled plank floor were seen running along the entire excavation unit. The wooden timbers noted earlier were undoubtedly from driftwood logs with knots and branch ends clearly visible during the excavation (Fig. 6). In contrast, the planks appear to be uniform in size, milled and forming a flat floor to the structure. Directly on top of this wooden floor I discovered a number of artifacts or tools that had been abandoned. These included a modified walrus tusk, a wrought-iron bolt fragment, and four groundstone cobbles, three of which were black basalt and one green metamorphic or quartzite, and

all of which exhibited abrasions along both faces. Due to the short time available, I was only able to excavate the southwest quarter of the test unit to the clay substrate. While removing the milled flooring, I discovered a second layer of milled wood, this layer placed perpendicular to the first, lying directly on top of the sterile clay substrate. Between the two wood layers, a white glass trade bead was recovered in situ at 29 cm below surface, linking this structure to its probable Russian-Unangan construction. Total soils excavated at this site were 0.3 m³.

A possibly related feature consisting of a pile of twenty three rocks approximately 1 m in diameter and 27 cm high was located near the cliff edge approximately 28 m from the house (Fig. 7); however, this feature could have also been constructed at a later date by other island visitors.

ARTIFACT ANALYSIS⁶

Analysis of artifacts recovered from the site include:

walrus tusk: A heavily weathered, modified walrus tusk with rounded end. The top of the tusk is convex, rath-

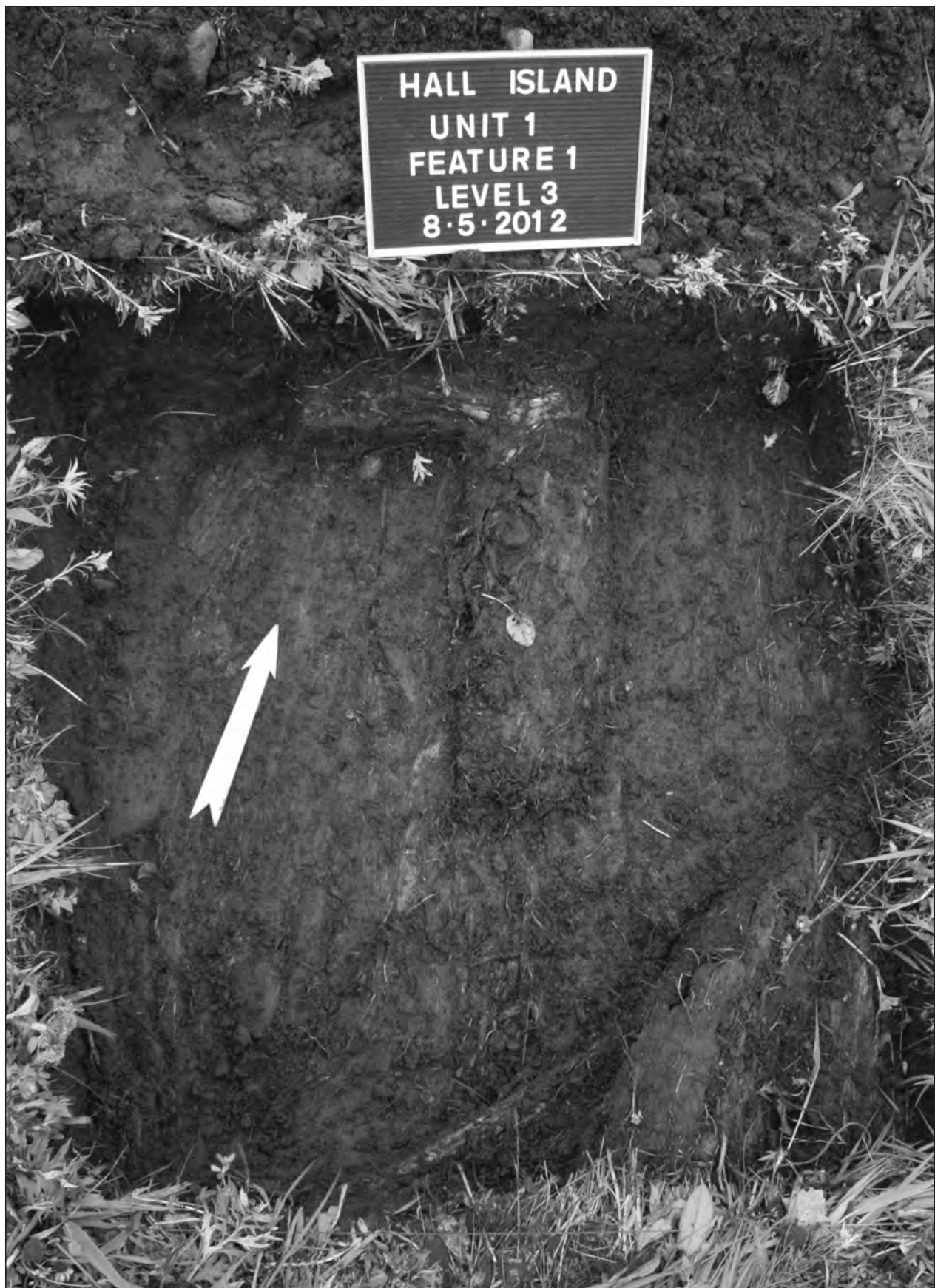


Figure 6. Milled wood floor with logs at XSM-011, probable site of a Russian camp in 1809.



Figure 7. Rock feature with house depression in background at XSM-011.

er than flattened, suggesting that it was not hammered as a stake. A notch is present near one end but the poor condition makes it impossible to tell if this is a product of human modification or weathering. Use unknown.

groundstone: Four circular-to-oval flat beach cobbles that exhibit grinding scars along both flat faces. Three are basalt, two of which are over 14 cm in diameter. The remaining basalt cobble is approximately 7 x 10 cm. The fourth cobble (8 x 11 cm) is of green metamorphic material or quartzite and exhibits the same grinding scars as those found on the basalt cobbles.

white glass trade bead: Type WIIa14 (Kidd and Kidd 1970), a circular wire-wound bead (2–4 mm) of opaque white glass. The Russians first brought their beads for their trade in the Pacific from Europe across Siberia and from China through the Mongolian border town of Kiakhta. These early beads were dominated by small seed beads up to 5 mm in diameter. Beads that dominate collections from Alaska dating before 1840 are irregular, semitranslucent medium blue and white seed beads coated with clear glass (Francis 1988:341). The bead recovered at XSM-011 most resembles this variety of bead.

milled wood plank: An analysis of one of the floor's milled planks revealed it to be from one of three species of spruce: *Picea sitchensis*, *P. glauca*, or *P. mariana* (Claire Alix, pers. comm. March 7, 2013).

wrought-iron spike: A single, poorly preserved wrought-iron spike was recovered. It has a square shank, but the head and point configuration could not be ascertained. X-ray fluorescence (XRF) analysis of the spike was conducted to determine its elemental composition, discussed below.

XSM-002

The Bull Seal Point site was recorded by Frink in 1997 and comprised a 5.3 x 3.3 m “pit with a slight berm surrounding the dug in floor” (Frink 1997:5). Seventeen perpendicular pieces of wood were also noted to the south of the depression. Frink excavated two 0.2 x 0.2 x 0.35 m test pits within the large depression, recovering charcoal, a nail, and unidentified metal fragments, but insufficient information to link this structure to the Russian expedition of 1809–1810 or later historic fox-trapping activities.

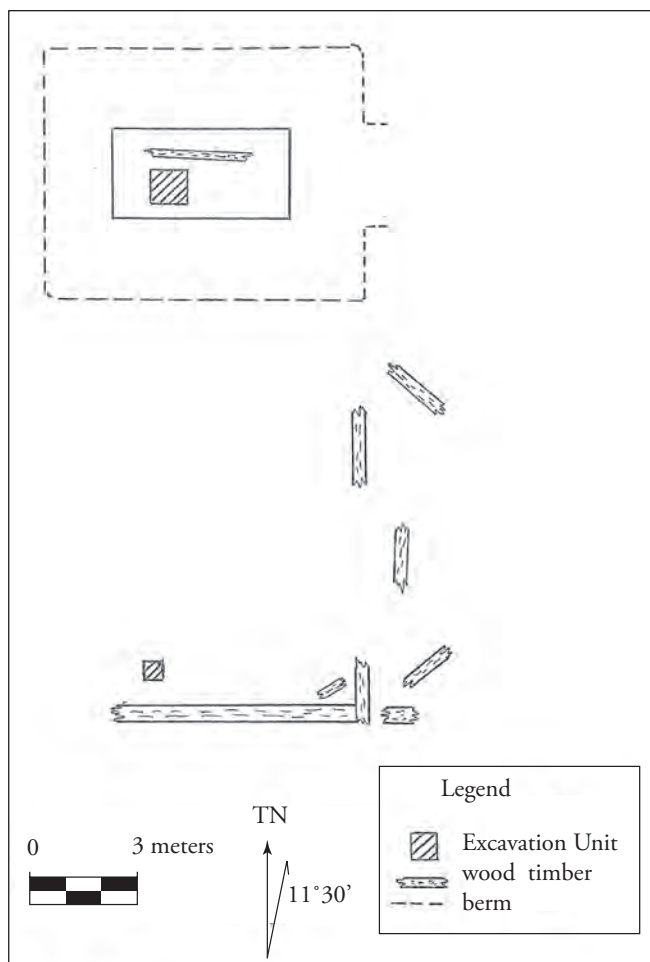


Figure 8. Site map of XSM-002, the Bull Seal Point site.

When revisited in 2012, the central site feature appeared to consist of a large grassy mound, in a rectangular shape with rounded edges (Fig. 8). Within the mound was an inner depression measuring approximately 5 (90°) x 2.5 x 0.4 m, with the external berm extending the structure an additional one to two meters in all directions. A 0.3 m wide break in the berm is visible to the east, denoting the probable entrance to the structure. The 2012 investigations consisted of excavating a 1 x 1 m unit within the depression and a 0.5 x 0.5 m unit within the larger plank-strewn area to the south, noted by Frink. Total excavated soils were 0.2 m³.

The 2012 test unit was placed near the southwest corner of the depression. Evidence that the structure had burned in the past is evident throughout the unit with the remains of burned milled timbers exposed within the sod layer. Excavations within this unit extended 23 cm in depth with the sterile substrate first detected in some portions of the structure by 15 cm below surface. Level 1 (0–10 cm) revealed an abundance of burnt wood and many large

wrought-iron spikes. A few round wire-drawn nails and a piece of clear glass were also recovered. Level 2 (10–20 cm below surface) was very similar in results with more burnt wood, large spikes, and nail fragments. The presence of wrought-iron spikes suggests a nineteenth-century feature, while the round wire nails suggest a very late nineteenth- to early twentieth-century construction. The large burnt timbers may have been salvaged from a nineteenth-century shipwreck and used in the later construction of a twentieth-century cabin, possibly for fox trapping. This structure later burned to the ground, although how and when remains unknown.

A 0.5 x 0.5 m unit was placed within an area to the south where numerous milled planks could be seen. Frink noted this area could be the remains of an ancillary feature. No artifacts or structural remains were recovered from this excavation; sterile clay was found directly beneath the sod layer.

ARTIFACT ANALYSIS

Analysis of artifacts from XSM-002 sought to determine if this site is related to the early nineteenth-century Russian overwintering expedition or a later use of the island, possibly related to early twentieth-century fox-trapping activities. Such a determination hinges on the ages of the wrought-iron spikes, wire nails, and the sample of milled wood. From the single 1 x 1 m excavation unit, fragments of forty three spikes were recovered (Fig. 9). Of these, 77% were broken with only the proximal ends recovered. One possible explanation for this breakage pattern is that the wood used in the structure's construction is from a shipwreck and, prior to its reuse, Natives or fur hunters attempted to salvage the spikes, but they snapped during the recovery effort, with the beams later incorporated in the structure's construction. Alternatively, the spikes may have snapped off when shipwreck timbers washed up on the beach. Extremely cold temperatures, like those found in the Bering Sea, would have made the wrought iron brittle and likely to break if repeatedly battered against rocks and timbers. The wrought-iron spikes all had four-faceted, mold-formed tapered heads, square shanks, and sharp chisel points. Such spikes are commonly referred to as ship's nails or barge spikes and were in common use in ship construction from at least 1850 through the 1920s (Graham and Emery 1923:38; Andrew McConathy, pers. comm. April 27, 2013). Round wire nails were manufactured from 1890 to the present (Visser



Figure 9. Wrought-iron spikes recovered from excavations at XSM-002.

1997). The presence of both of these artifacts places the age of the structure sometime after 1890.

Evidence that the structural timbers in XSM-002 had been burned following abandonment was found throughout the excavation unit. A well-preserved fragment of the milled wood was analyzed by Claire Alix, UAF, and identified as *Pseudotsuga* sp., most probably *Pseudotsuga menziesii*—Douglas fir. Only five to seven species of *Pseudotsuga* are native to western North America and eastern Asia; no species are native to Russia (Claire Alix, pers. comm. March 7, 2013).

The large number of spikes recovered from such a small area within the house site and the fact that the structure was made from fir timbers suggest that the cabin was constructed from shipwrecked timbers, possibly from the *Great Bear*, wrecked off Pinnacle Island on August 10, 1916. Built in Fort Blakeley, Washington, and designed for sailing among the ice, the *Great Bear* was built only of wood, with a hull 29 inches thick. The 14-inch ribs were placed only 2 inches apart, making the vessel almost all frame for extra strength. The *Great Bear* had a double hull with planking “inside and out” which was “through bolted and cross bolted in every conceivable manner” (Spitzer 2009:21–22). Such construction could account for the wood and many spikes used in the construction of the house at XSM-002.

Shipbuilding began on the Puget Sound in the early 1860s. Ships built in the Pacific Northwest would have likely been built from Douglas fir, since it was tough and resisted rot. The majority of whaling ships that plied the Bering Sea were constructed in New England, where oak would have been the dominant species used.

XSM-006

First recorded by Griffin in 2002, Big Lake Fox Trapping Cabin and Cache consisted of the remains of a large semisubterranean house and collapsed cache, south of Big Lake in the southern half of St. Matthew Island. Both features were surrounded by raised earthen mounds (similar to but more extensive than that seen at XSM-002), were built from milled wood using wrought-iron spikes (i.e., four-faceted, mold-formed, tapered head, square shank, and a sharp chisel point) and round wire nails. Due to the similarity in spikes, an effort was made to revisit this site in order to collect a sample of a wrought iron spike and several round wire nails. Given the current state of

preservation, these features were likely built during the early twentieth century.

XRF examination of three spikes from XSM-011, XSM-002, and XSM-006 was conducted by Loren Davis and Alex Nyers from Oregon State University and focused on the concentrations of iron, cobalt, manganese, and light earth elements. Composition of the spike from XSM-006 differed from that of spikes recovered from both XSM-011 and XSM-002, which are more similar. XSM-006 is believed to have been occupied in the early twentieth century. If the timbers from XSM-002 were from the *Great Bear* shipwreck, construction of this feature would date to the same time period.

XRF analysis identified differences in spikes recovered from these two sites, perhaps because the wood (with spikes) derived from ships constructed on different coasts. Although spikes recovered from XSM-011 and XSM-002 were similar in chemical composition, the sample size was extremely small; conclusions must await analysis of a larger sample. XSM-011 appears to be the site of the Russian 1809 hunting camp. XSM-002 is likely more recent than the Russian expedition and likely postdates 1890, based on the wooden timbers used in the hut’s construction and the presence of round wire nails. The dating of XSM-002 is inconclusive and will need to be reconsidered in the future.

SUMMARY AND RECOMMENDATIONS

While the 2012 fieldwork was limited, I believe the location of the 1809–1810 Russian overwintering camp has been identified on Hall Island (XSM-011). This identification is based both on locating a site that compares favorably with early historical descriptions (i.e., Elliott and Maynard’s 1875 map) and on the recovered artifacts, including an early glass trade bead and the presence of milled wood. Preservation of the house appears to be quite good, with little sign of disturbance aside from weathering. Given the high number of tools recovered from the limited area excavated (five tools in a unit of 1 m² and 30 cm deep) and the percentage of the site that remains unexcavated (i.e., 94%), this site likely possesses significant data on early Russians in Alaska and their interaction with Unangan hunters. The remoteness of Hall Island has resulted in less opportunity for damage to the site, but creates cost and logistical obstacles in planning future archaeological investigations. Future excavations should include a minimum of two archaeologists and more time.

While the cultural material is not deep, adequate time will be needed to properly excavate the site and look for ancillary features. Such an investigation could provide valuable and rare data on this early period of Alaska history.

All historical accounts of the Russian hunting expedition mention the death of a number of Russian hunters, but no sign of burials near the Hall Island site was identified. Whether the deceased were buried and left on Hall or St. Matthew islands or reburied elsewhere following departure in the summer of 1810 is unknown. Temporary burial areas would have undoubtedly been needed during the winter months in order to protect the deceased from marauding polar bears. Further investigations are needed to identify such areas. However, given the low-lying tundra vegetation and the minimal disturbance that would have resulted from the excavation of a burial, it is unlikely that surface changes would be pronounced enough to recognize such features.

Site XSM-002 does not appear to be related to the earlier Russian expedition and likely was constructed after 1870. Its possible relationship to early twentieth-century shipwrecks needs further study. Due to its preservation and historic artifacts, site XSM-006 likely dates to the early twentieth century and probably relates to fox-trapping activities.

ENDNOTES

1. Larionov reportedly went insane during the spring of 1806 and died in June of the same year (Khlebnikov 1994:140). He was replaced as manager by Moscow merchant Fedor Burenin, who served as the manager of the Russian-American Company's Unalaska office until 1813.
2. An *artel* is a cooperative association, like a hunting party. Members lived communally.
3. The map was discovered thanks to a fortuitous meeting with John Cloud, a historian with the National Oceanic and Atmospheric Administration (NOAA) who works closely with the staff at the American Geographical Society Library in Milwaukee.
4. The other two hunters are said to have left St. Matthew on a small skiff, fearing that they would not be rescued. Evidence of a temporary camp of the sailors on Hall Island was discovered but both sailors were believed to have drowned (Healy 1892).
5. A bottle was discovered on the Pribilof Islands with a note that had been supposedly written by a man ship-

wrecked on St. Matthew Island (*Popular Mechanics* 1916). No evidence of a survivor or mention of finding evidence of another shipwreck is recorded following the rescue of the crew of the *Great Bear*.

6. Materials recovered from the 2012 investigations are temporarily curated at the USF&WS Regional Office in Anchorage with permanent curation at the University of Alaska Museum, Fairbanks.

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AN AMERICAN TREASURE IN FAIRBANKS: THE REHABILITATION OF THE KOLMAKOVSKY BLOCKHOUSE

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ABSTRACT

In 1841, an eight-sided hand-hewn log blockhouse became the first structure at Kolmakovsky Redoubt, a new Russian outpost along the south bank of the middle Kuskokwim River. That same blockhouse, thanks to a Save America's Treasures grant from the Institute of Museum and Library Services (IMLS), has been stabilized and re-presented to the public in a way that more accurately reflects the history and context of its original installation. This report documents the process undertaken by University of Alaska Museum of the North (UAMN) staff and contractors to preserve the unique structure.

INTRODUCTION

Resting in a protected area along a walking trail on the campus of the University of Alaska Fairbanks (UAF), to the northeast of the University of Alaska Museum of the North (UAMN), rests a humble octagonal log structure with a sod roof. Often passed without a second thought by thousands of tourists, students, staff, and faculty, the Kolmakovsky Blockhouse (Fig. 1) now holds a position of prominence and is officially recognized for the important role it played in the history of Alaska. With the assistance of a \$75,000 grant from the Save America's Treasures program managed by the Institute of Museum and Library Services (IMLS), the oldest building on the UAF campus has been rehabilitated and stabilized for future generations.

THE HISTORICAL CONTEXT

The Kuskokwim River (*Kusquqvak* in Central Yup'ik) runs 1130 km (724 miles) through southwest Alaska (Fig. 2) and is the setting for dozens of communities and thousands of people. For several millennia, the indigenous people of the middle Kuskokwim¹ have fished these waters and hunted, trapped, and gathered plants along its shores, depending on the natural bounty of the land to provide food, shelter, and materials for clothing, tools, and transportation. Despite

the cultural richness of this region, very few archaeologists have undertaken work here, and therefore few publications have examined the ethnoarchaeology² in this area (cf. Oswalt 1980; Oswalt and VanStone 1967; Redding-Gubitos 1991; Rogers et al. n.d.).

In 1841, the Russian-American Company (RAC), seeking to obtain the rich beaver and river otter furs of the interior of Alaska, set about the construction of the Kolmakovsky Redoubt, having successfully operated a number of smaller trading operations along this section of the river over the preceding years (Oswalt 1980:10–17). Following what was possibly becoming a RAC standard practice and according to local tradition (Oswalt 1980:17–18), the first structure raised at the redoubt was an eight-sided log blockhouse (Fig. 3). Intended as a defensive structure to protect local company employees as they established the new settlement,³ this building was never used as such.⁴ Local Yup'ik oral history (Oswalt 1980:17) states builders debated on how thick to make the log walls by experimenting with a musket fired point-blank into the side of a log, most likely locally harvested spruce. Gauging the depth of the ball's penetration, they doubled the measurement and determined it adequate: approximately 18 cm.

The history and significance of Kolmakovsky Redoubt has been documented by a number of authors (Bias 2010; Dilliplane 2007, 2010; Hilsinger 2002; Jackson 1991; Oswalt 1980). In summary, the RAC operated this remote post until approximately 1866, when Kolmakovsky and the other RAC properties were purchased by American companies. The Alaska Commercial Company (ACC) and private individuals exchanged ownership of the fort several times between 1875 and 1917, when the final sale from the ACC to an “unstated purchaser for \$250” (Oswalt 1980:29) ended the fort’s operation as a trading

post. According to copies of letters on file at the UAMN’s Department of Ethnology and History (Walsh 1929), a miner named Al Walsh of Crooked Creek may have been that 1917 buyer. A letter dated March 18, 1929 to Governor Parks states, “I bought the blockhouse to preserve it as a relick [*sic*] of early Russian occupation and donated it to the Pioneers of the Kuskokwim. October 18, 1928, it was donated to the School of Mines [now the University of Alaska] at Fairbanks by the Pioneers of the Kuskokwim and we hope you will consider us in this matter and we will all see it rebuilt on the College grounds of Alaska[’s] greatest institution.”

The University of Alaska Museum⁵ was established in 1926, and by 1928 it held collections primarily relating to the ethnology and archaeology of the Bering Strait region. The collections first went on view in 1929, but the blockhouse was not among those exhibits, having been placed in storage. The Kolmakovsky structure and a similar octagonal blockhouse from Mikhailovsky Redoubt (St. Michael)—donated to the museum in 1937 by the Northern Commercial Company—were held in a warehouse until the early 1980s, when funding from the Alaska State Legislature made it possible to reconstruct the two buildings and exhibit them.

THE SITE

While the blockhouse was resting comfortably in a warehouse in Fairbanks, the site of the redoubt was receiving close examination by Wendell Oswalt of the University of California, Los Angeles (UCLA), who first visited the site on the southern banks of the Kuskokwim River in



Figure 1: The blockhouse from Kolmakovsky Redoubt was built in 1841, moved to Fairbanks in 1928, and has been exhibited near the Museum of the North since 1982.

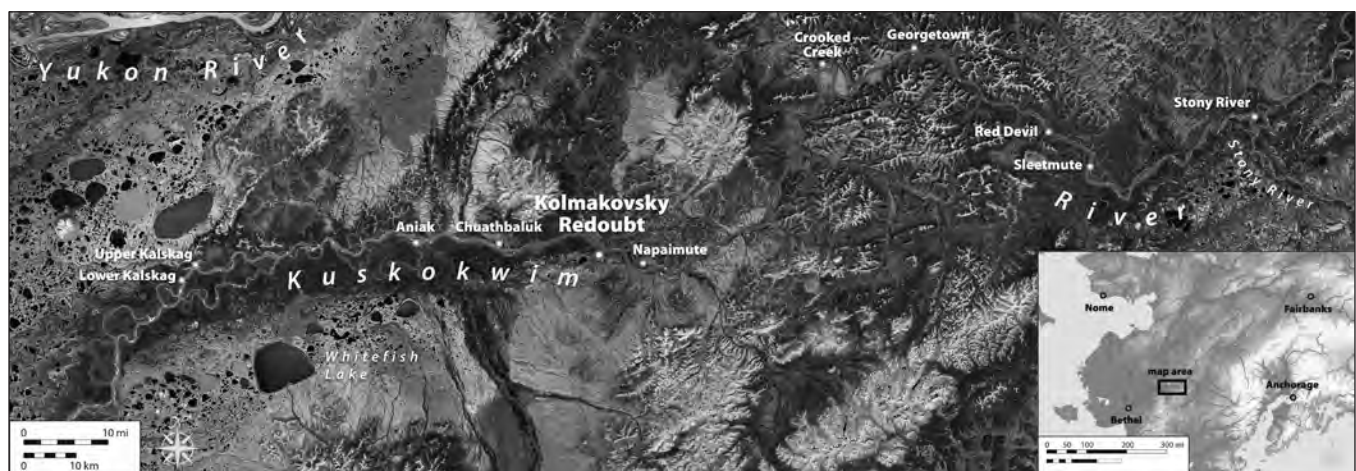


Figure 2: The middle Kuskokwim River is home to ten modern villages, stretching from Stony River to Lower Kalskag. Map by Sam Coffman and Google Maps.



Figure 3: The blockhouse next to the store, ca. 1900. Unknown source.

1953 (Oswalt 1980:viii). In 1966, Oswalt returned for the summer, in part due to the request of UAM director L.J. Rowinski, who was looking forward to assembling and exhibiting the blockhouse and felt that a full range of artifacts would make a more enticing exhibit. Oswalt returned to Kolmakovsky for another field season in 1967; the resulting artifacts (nearly 5,000 of them) were eventually deposited at UAM's archaeology department (acc. no. UA77-43).

Based on a 1971 nomination by William S. Hanable, historian with the Alaska Division of Parks, the Kolmakov Redoubt Site was listed on the National Register of Historic Places by 1974 (Hanable 1974). However, it appears that no work has physically occurred on the site since Oswalt left in the summer of 1967. Oswalt's 1980 publication remains the primary work on Kolmakovsky.

THE FIRST MOVE

In 1982, the Kolmakovsky blockhouse (cat. no. UA81-26-2) was reassembled behind the newly constructed

Otto Geist Building, the new home of the UAM, while the St. Michael blockhouse (UA81-26-1) was lent to the Anchorage Museum for installation in their Alaska Gallery. The UAM-based project was fully documented by Dinah Larsen (1983), and the accession file in the Ethnology and History department at UAMN holds many photographic negatives and contact sheets by the museum photographer at the time, Barry McWayne. The building enjoyed two decades of exhibition behind the museum, being viewed by thousands of visitors each year. However, in 2001 when museum staff began to prepare for new construction and renovation, Special Projects Manager Gary Selinger (retired 2005) advised that the building needed to be moved in order to protect it. At the time, the gently sloping lawn directly to the east of the museum was covered with spruce and birch trees, and a small cleared area seemed the perfect location for the blockhouse. An assessment of the stability of the building took place and Ethnology and History Curator Molly Lee (retired 2008) approved the move of the building intact.

A local log cabin moving company spent several days preparing the building, which they lifted off its gravel pad, placed onto a flatbed truck, and then drove to its new “temporary” location, safely out of the way of the planned construction activities.

The expansion and renovation of UAMN was completed in 2005, but in 2006 a 25-year-old roof component of the blockhouse appeared ready to collapse, creating a dangerous situation for visitors. Museum Operations Manager Kevin May and I were enlisted to find a temporary solution to stabilizing the deteriorating sod roof. We opted to remove the failing structural fascia boards, sod, and rotted polyethylene sheeting that formerly served as the moisture barrier between the sod and the spruce-pole roof constructed in 1982. In its place went reinforced polyethylene sheeting to protect the roof until funding could be secured to deal with the building appropriately.

AN AMERICAN TREASURE

As the years rolled by, the blockhouse weighed heavily on my conscience. I felt that I was not fulfilling my obligation to care for the building and so began to formulate a plan. Over the years, the museum’s former curator, Molly Lee, and I had discussed the possibility of applying for a Save America’s Treasures grant to rehabilitate the structure. Up until this time, we had both been consumed with the museum expansion and all the work required to move and stabilize collections inside the building. With that project completed, I could now turn my attention to the blockhouse. In May of 2009, I submitted a proposal to the Save America’s Treasures program to move the building to a new location slightly north and west of its present site, near the peak of what had recently (February 2008) been designated Troth Yeddha’ Park by the University of Alaska Board of Regents (Office of Public Affairs 2008). Sentiments expressed by the Troth Yeddha’ Park Planning Committee (pers. comm., February 25, 2009) indicated strong feelings against the presence of a Russian structure on a green space intended as a tribute to Alaska Native culture and history on the UAF campus. Thus a new, more protected location was selected that would benefit the blockhouse and the museum’s visitors as well, i.e., along the edge of the museum parking lot in a site visible from both the building’s front doors and the parking lot entrance. The new site was approved by the UAF Master Planning Committee’s Landscape subcommittee. In December of 2009, I received notification that our project

had been funded for \$75,000 for the rehabilitation and stabilization of both the blockhouse and the archaeological collections deposited by Oswalt. We could start moving forward in the new year.

A number of local log preservation specialists were considered, and eventually Sandy Jamieson was selected based on his experience working on historically significant log structures in the Interior (e.g., Louise Kellogg historic cabin, Palmer; St. James Episcopal Church, Tanana; Rika’s Landing historical structures, Big Delta; Black Rapids Roadhouse; and Morris Thompson Center Dunkel Street Cabin, Fairbanks). The summer and fall of 2010 were spent working out the extent of reconstruction and developing a plan for the removal and reassembly of the blockhouse. The foundation slab and surrounding sidewalk were completed in the fall and in early November, Jamieson’s crew removed the 1982-era roof of the blockhouse (Fig. 4) and disassembled the building by hand, transporting it offsite for winter reconstructive work.

Over the winter and into the spring of 2011, Jamieson worked on hand-cutting replacement logs for those that had rotted beyond the point of stabilization. Claire Alix (2010) had confirmed the logs were spruce, and so locally harvested and cured white spruce (*Picea glauca*) was prepared for use. Jamieson studied the half-lapped, self-locking notched corners of each wall log, carefully hand-cut by RAC craftsmen on site at the redoubt (Oswalt 1980:17). This efficient design allowed a team of two men to assemble a building in a matter of hours, once the logs are cut.

The building was reassembled at Jamieson’s workshop in mid-April to be sure the new logs fit properly. Each new log had to be scribe-fit to perfectly match the logs above and below. By the first week of May 2011, the blockhouse was ready to be returned to the university grounds for its final reassembly. Pressure-treated lumber was placed atop the concrete pad to separate the historic logs from the moisture of the concrete and to act as a sill plate. On a beautiful sunny afternoon, the blockhouse was reassembled and was ready once again to be examined by visitors (Fig. 5).

The project wasn’t even close to being done, however. The roof, which had been built by Gareth Andrews in 1982, required stabilization and rehabilitation as well. One aspect of the Kolmakovsky blockhouse that makes it unique among the known blockhouses of Russian America is the sod roof. While the original roof and floor were left at the site on the Kuskokwim (*Farthest North Collegian* 1930:1), photographs taken by William Weinland in 1884 (Fig. 6) show a sod roof similar in de-



Figure 4: The spruce pole roof from 1982 being removed from the blockhouse in 2010.



Figure 5: The blockhouse and roof (in background) on the new foundation.

sign to that replicated by Andrews. Moss had been used to chink the roof, and this had not deteriorated like the polyethylene sheeting that was removed in 2006. In discussions with Jamieson, we agreed on an approach that would combine both traditional and modern materials for protecting the roof structure while keeping the sod healthy. A natural canvas was laid over the moss and over

that, a custom-fit landscaping membrane to protect these natural materials. (Historically builders would have used birch bark.) One of the concerns about the older version of the sod roof was the relative instability of the sod—if a small section started to slump, there would be little to keep it in place and the whole section of heavy sod could be lost. To remedy this, Jamieson suggested the use of peeled



Figure 6: Kolmakovsky Redoubt, ca. 1884, by Moravian missionaries, William H. Weinland and J. Adolphus Hartmann. Courtesy University of Washington Libraries, Special Collections, UW 33405.

tamarack (*Larix laricina*), which has excellent resistance to rot. Standing dead trees were harvested locally, peeled, and cut to length, then overlapped at the corners and connected with wooden pegs. Once the substrate of the roof was completed, Jamieson and his assistants moved the roof back onto the building and secured it onto the newly carved top round of logs. Over the month of September, several hundred pounds of locally harvested tundra moss was set onto the roof and birch bark was wrapped over the rough edges to complete the job.

Over the winter and spring of 2012, we monitored any possible deflection of the central support structure inside the roof; Jamieson was concerned about the additional weight of the new materials, combined with the weight of the snow. However, the design held and the roof was stable.

The summer and fall of 2012 were spent watching how visitors interacted with the building and how the sod roof reacted to the weather. By fall it was clear that we would need to supplement the sod covering that had been positioned on the roof. The drying of the Fairbanks summer sun caused the rectangular pieces to shrink and a number of gaps opened. We also worked on devising

where our interpretive panels would be placed and what information we wanted to communicate through them. I had the honor of traveling to the Kuskokwim River and visiting the site of Kolmakovsky and standing in the depression left by the foundation of the blockhouse (Fig. 7). Guided by Chris Wooley of Chumis Cultural Resource Services and David John, Crooked Creek elder and consultant, we walked through tall grass and birch trees and recorded GPS points of several features.

Back in Fairbanks, two projects initiated by Northern Land Use Research (NLUR) archaeologists combined the blockhouse and technology. First, a 3-D rendering of the building was developed. Using hundreds of photographs and a custom-built stitching program, a digitally manipulable model was produced, which I was able to bring to Crooked Creek on the Kuskokwim and share with community members. Secondly, archaeologists used ground penetrating radar (GPR) to see if the structural stability of historic buildings could be detected in the resulting scans. They produced a series of diagrams that communicate the overall density of the wood, which may be used to assist with the assessment of historical structures *in situ*.

The final pieces to our project were completed over the summer of 2013 with the installation of four full-color interpretive panels around the blockhouse. Several bags of peat were added to the tundra moss to consolidate the covering and create a more unified appearance. The “jail door,” previously installed by the museum to keep visitors from climbing inside, has also been replaced with a sheet of clear acrylic so that the building is secure, but visitors are able to see the construction details inside.

SUMMARY

The rehabilitation of the Kolmakovsky blockhouse has resulted in both the stabilization of an important historic structure and symbol of culture contact and change, as well as an improvement in the overall interpretation of the building and site. The visibility of the blockhouse has

been improved for museum visitors as well as those walking along the trails of UAF. Interpretive panels describing the ethnological context of the middle Kuskokwim River area, summarizing the history of the RAC, illustrating a number of the items excavated by Oswalt, and summarizing the rehabilitation project, act as invitations to visitors, dramatically increasing the number of people examining the building. Through web-based advertising as well as social media (e.g., Facebook, Twitter, and YouTube) the story of the Kolmakovsky blockhouse has been shared with a new generation of Alaskans and visitors. An introduction to the people of the middle Kuskokwim River region is now an integral part of the story of the blockhouse and the associated collections held in the archaeology collection.

Anyone interested in examining the blockhouse or the archaeological holdings in more detail should contact the author or the UAMN Archaeology Department.



Figure 7: Angela Linn standing in the foundation depression for the blockhouse at the Kolmakovsky Redoubt site, September 2012. Photo by Chris Wooley.

ENDNOTES

1. The middle Kuskokwim River area is defined as the ten communities along the middle stretch of the Kuskokwim River, from Stony River to Lower Kalskag.
2. In keeping with the works of Oswalt and VanStone, ethnoarchaeology is a subfield of archaeology that integrates modern ethnological, historical, and archaeological data to more completely understand a particular site.
3. RAC administrators were likely nervous during the initial phases of construction at Kolmakovsky due to the recent massacre at Russian Mission [Ikogmyut] on the Yukon in 1839 (Zagoskin 1967:252).
4. Oswalt lists a number of sources that describe the blockhouse being used as a fish cache rather than a defensive structure around 1892. One source noted its use as a jail ca. 1902 (Oswalt 1980:18).
5. Coinciding with the opening of the new wing in 2005, the University of Alaska Museum added “of the North” to its official name.

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ROGER (KOKITUK) MENADELOOK

Eileen Norbert

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Roger (Kokituk) Menadelook of Diomedes was born at Little Diomedes on April 12, 1911, to Menadelook (Charles Menadelook) of Wales and Aghmoya (Etta Soolook Menadelook) of Little Diomedes. Both of his grandfathers were *umaliit* (owners and captains of *umiaks*) and *anak-guts* (shamans). He was named after Charles Menadelook's father Kokituk and was the oldest of the Menadelook's nine children who lived to adulthood (three other children died as babies). Charles Menadelook was one of the first Inupiat school teachers in Alaska, so Roger lived in Diomedes, Wales, Nome, Kotzebue, Noatak, Unalaska, Shishmaref, Shaktoolik, and Sinuk. The family lived on Diomedes when Charles Menadelook taught at Gambell. After Roger's grandmother Oongak died in the 1918 influenza epidemic, his parents took in Roger's aunt, Anna Ahmasuk. Roger taught her how to play the piano and helped her learn to speak English. A young cousin in Shishmaref said Roger used to tease her. The first time he did so she cried, so Roger took her to the store and bought her candy; she did not mind his teasing after that. The Menadelook household was very lively with six boys and three girls. Roger learned to hunt in his early teens. When the family lived at Sinuk, Roger and his brothers helped their father with his reindeer herd. Charles Menadelook was an avid photographer; his passion for photography was not shared by his son, but after Charles Menadelook died Roger took many family photographs.

In 1928, Roger attended the Alaska Agricultural College and School of Mines in Fairbanks and majored in engineering. He wrote a descriptive article about hunting on Diomedes that was published in the college newspaper. After he returned home he was offered a teaching position in Shaktoolik, but he did not accept it. When his sister

Uloya (Sarah Menadelook Maloney) and her two daughters came to Diomedes to visit Aghmoya, Roger brought them by dog team to meet his girlfriend and visit relatives. His girlfriend gave the girls gifts of candy and gave his mother dishes.

Roger translated parts of the New Testament with Oscar Brown, a fellow Inupiaq. He also translated for the courts in Nome and worked as a bookkeeper for Sinrock Mary. He and his first wife, Flora, had a daughter named Etta. After Flora died, he married Teresa Omiak from Diomedes, and they had two sons, Roger Jr. and Norman.

On August 5, 1948, Roger, along with seventeen other Diomedes people (Igalit), including women, children, and a baby, were making what they thought was a routine visit to East Cape in Siberia, the easternmost part of the U.S.S.R. They did not know that all U.S. Native permits to visit Russia were no longer valid. This vital information was *mailed* rather than sent by telegram: Diomedes in those days was lucky to get mail three times a year. The Igalit were held captive for fifty-one days on Big Diomedes Island by Russian soldiers. They were continuously interrogated and lived in horrific conditions. They lived in makeshift tents during the cold fall weather, when the first snowfalls were starting and the ice pack was coming down from the north. Their food for the most part was a type of sour bread that was raw in the middle; sometimes they were given black Russian bread and a thin soup made from salted salmon. Once, they saw a dog take a bite of half-rotten salmon on the beach. The people ate what remained of the fish because they were near starvation. Roger was treated especially badly because the Russians thought he was a spy, perhaps because he spoke fluent Inupiaq and English and knew a little Russian. But he was also educated. He



Roger Menadelook (left), Frank Elasanga (center), and Walter Kiminock (right) pose during a winter hunting trip on Little Diomed Island, ca. late 1920s. Photograph by Charles Menadelook, courtesy of Eileen Norbert.

would sometimes be interrogated from five in the morning until midnight or 1:00 a.m. All the while he was being interrogated he had to sit straight on a small stool.

To pass the time while he was captive, Roger carved small boats out of driftwood for his sons at Diomed. Roger Jr. was five or six years old at the time.

On September 26, 1948, the Russian soldiers finally set the Ingalit free. The captives rowed back to their home island. They were very skinny and in poor health. After the nurse on the BIA ship *North Star* examined Roger, she told him he had tuberculosis (TB). His health never recovered. He wrote a vivid and compelling article on the peoples' captivity and sent it to Ernest Gruening, who was then governor of the Alaska territory, a position he held from 1939 to 1953. Roger's memory of the captivity was amazing, recalling the smallest details. Roger asked for Gruening's assistance in finding a publisher for his ar-

ticle. He was too ill to work and hoped his writing would bring in money to help support his family. Roger's article can be found at the Alaska State Archives in Juneau, along with his letter to Governor Gruening.¹

Roger died in 1949 in Juneau. His daughter Etta later contracted tuberculosis and spent many years in a TB sanitarium in the state of Washington. She never returned home and died in Oregon. Aghmoya raised her grandson Roger Jr. at Diomed. Later, he worked for the State of Alaska for many years and owned a reindeer herd. He died of cancer in 2008. Roger's youngest son, Norman, lives in Teller.

ENDNOTE

1. Alaska State Library and Museum, Territorial Historical Accession No. 11082, MS 4, Box 13, No. 5, Juneau.

A GROUP OF ALASKAN ESKIMOS RECEIVE GREETINGS AND SAMPLE THE HOSPITALITY OF SOVIET RUSSIA

Roger (Kokituk) Menadelook
(1948)

Ever since early man started to venture cautiously upon the sea in rafts and later in boats, it is easy to assume that the Bering Straits have formed a stepping stone for the early venturesome traveler. Very likely the boats used were of the same type now used by the modern Eskimo. Until the land across the Bering Straits came under the rule of the Bolsheviks, the Diomed Islands (Big Diomed in Siberia and Little Diomed in Alaska) were stopping places for Natives from both Asia and Alaska who were going to the other side on trading trips. There was much trading between the peoples of various villages, and not only that, marriages took place, putting the peoples of the Bering Straits in close relationships and friendships.

About ten years ago an agreement between the Russians and our government was reached whereby a limited amount of Native travelers from Alaska were allowed to go to Siberia. The same agreement allowed Siberians to come to Alaska. There was supposed to be no trading and only a few small gifts were allowed to be given. . . .

. . . The spring walrus hunt was over. Meat had been dried and stored, the skins were dried, and the Little Diomed Islanders turned to thoughts of a vacation. Some determined to go on a trading trip to Nome, but eighteen of us figured that a trip to Siberia first would be just the thing.

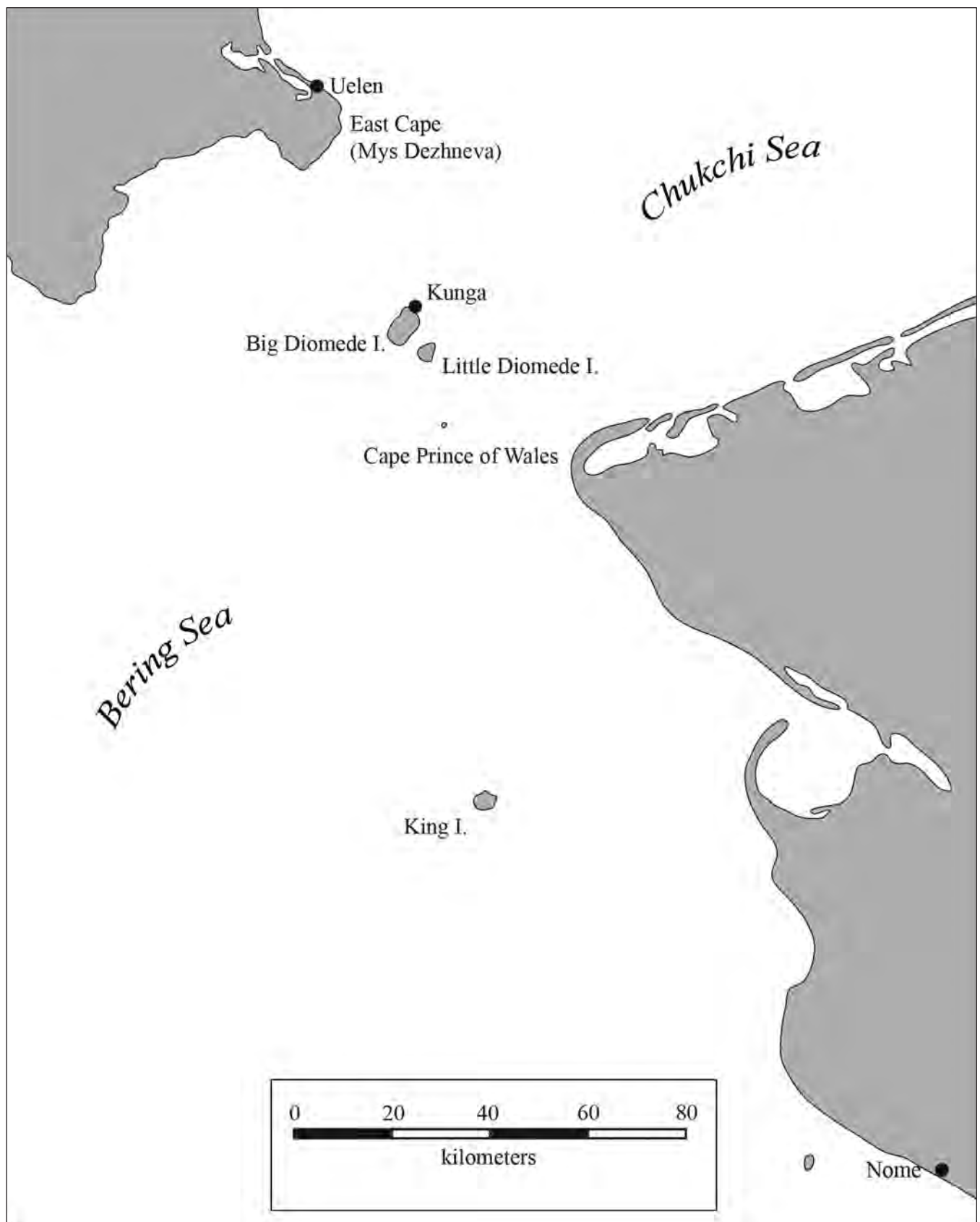
So, on the fifth of August, 1948, we started out on the first step of our journey—the Big Diomed Russian frontier and weather station, where we knew the permits signed by our teacher would be examined and what few gifts of tobacco, gum, pipes, pieces of print cloth, needles, and other knickknacks we took along for our Siberian friends would be pawed over by the Russian gendarmes.

It was a beautiful day, blue skies, no clouds, a whisper of a breeze from the south, and not a wave was breaking on the beach of Little Diomed, usually white

with waves breaking their monotonous rolling on the rocky beach and cliffs of the island. The sea was glass smooth, rippled only by the wakes of the two boats, and the silence broken only by the cries of the sea birds, which could be barely heard above the steady hum of the outboards.

I know not what the others were thinking, but to me the next few days meant a respite from monotonous months of staying cooped up on our little island. For many months the only things seen had been the other island, Big Diomed, which at times seemed only a stone's throw from our beach, and occasionally Cape Prince of Wales and the headland of East Cape seen while out hunting. As usual there would be a big Eskimo dance held at East Cape in honor of the visitors from Ingalik, our island, and gifts would be given and received and all of us would exchange hunting experiences of the winter and the women and old men the gossip. Little did I dream that the group of women in their colorful parkas, the men sitting on the beach, and the children running around and the dogs chasing each others' tails—all against the background of the schoolhouse and the looming tumble of rock that was our home—would be the last I would see of them until fifty-two days had gone by.

Following a custom that had been established the past few years, we beached our skin boats on the beach to the west and below the buildings of Koonga [Kunga], the Russian station. A Russian officer and an enlisted man came immediately, had us pull our boats up a little, checked the number of persons on each permit or passport (issued by an employee of the Interior Department) with the number of arrivals, and when that was done went over each person's stuff—taking care to count carefully the number of pieces of tobacco, chewing gum, the yards and fractions of yards of cloth, needles, not to mention the pipes and number of cans of milk taken along



Selected places mentioned in text. Map by Dale Slaughter.



View of the Bering Strait islands of Little Diomedede (foreground) and Big Diomedede; Associated Press News Features photo 3-24-59u. Courtesy Matt Ganley.

by Neuvuk for the baby. While we were being searched, an armed guard was stationed close to us. He was armed with a rifle with a long, ugly, three-cornered bayonet at its tip. Up on the rim of the hill in front of the houses were a number of Russians, some in civilian clothes and some more soldiers. All were staring down at us and we could see several looking at us with binoculars. We could see their faces distinctly, but they must have wanted to see what an Amerikanski looked like at close quarters.

By the time inspection was over, dusk was starting in. By signs we signified our wish of continuing on our journey, for we thought we could make East Cape before nightfall and before the storm broke. But to all of this the Russians turned a deaf ear. They broke out into torrents of Russian—of which we could not understand a word—and they finally made us pull our boats further up on the beach out of the water and had us set up a tent that we

had fortunately taken along. This we set up among the boulders. After having some coffee and pilot bread, we set trying to sleep on the rocks. Some of the younger men slept under a tarpaulin stretched over a hole among the larger rocks propped up with oars and paddles. The rest of us tried to sleep in the main tent. Like the rest, I had not bothered to take a blanket along and so had to stretch my rubber boots as a mattress on the rocks, using my raincoat to fill in the worst holes. And so wearing my parka and covering my knees with a jacket, I laid me down in an attempt to sleep.

I dozed off sound asleep, tired after all the excitement of the day—but woke up in about five minutes. A boulder was trying to bore a hole into my ribs, and my fingers were cold. Slipping on a pair of canvas gloves and shifting around, I attempted to go back to sleep. But the attempt was futile. No matter on which side or rib I attempted to

lie, another boulder would try to assert its bumpiness and would succeed. To make a long night a short one, I got up as soon as there was enough light and brewed a pot of coffee. Several other sufferers from the rough bedding sat up and joined me in a cup of three o'clock coffee.

"Well," said we to ourselves, "as soon as this storm is over we shall go to East Cape. I'll bet the Natives there will hold a big Eskimo dance for us as usual. And they'll have some walrus meat, fresh, with willow greens. And, of course, we shall have some rationed sugar, and some Klyeba, the sour bread which we, as usual, will hardly taste."

The storm that had been threatening the night before had broken out and the wind was coming from the south with full force. It was out of the question to go to Siberia now until the storm had spent itself. So we busied ourselves tinkering with the outboard motors, inspecting the boats for possible leaks, and we also took out the larger boulders in the tent, substituting smaller rocks and gravel with which to fill in the holes. We wanted to make ourselves as comfortable as possible for the remaining three days it would take the storm to blow itself out.

Knowing the Russian words for none, "*nyeto*," "*myaca*" for meat, "*klyeba*" for bread, and "*chaiya*" for tea, we made the Russians understand that we had no meat. Soon they brought down several loaves of black Russian bread, some canned fish, rice, some coarse oats, a bucket of dried potatoes, several small cans of ersatz coffee, a little sugar, salt, and two salted salmon. The salmon we cut up and soaked in a stream close by and we (the women) cooked rice with canned meat for that day's two meals. The bread we hardly tasted, for we were not used to its extremely sour taste and its rawness. The rest of the food we saved for the next day's meals. We had lots of food—yes, lots of food which we were to think of often in the days to come.

The second night was much the same as the first. The soldiers got us to pull the skin boats up further, and they had us take the outboard motors off and store them further up the beach. There were fewer spectators this day—they probably were fed up with seeing the old women amble around barely making any headway on the rounded boulders. As a means of passing the time we men made play boats of small pieces of wood and cottonwood bark. These we outfitted with keels of small pieces of rock or wire with a small paper sail. We tried to see who could sail his boat closest into the wind and make it land at the base of the

cliff to the east of us and below the spire of rocks that shut off portions of the sea view from the Russian houses.

Thus ended another day at Koonga. As on the other day, a guard was continuously posted nearby, but by nightfall he was moved to the further bank of the little creek.

The third night was a repetition of the other two nights. As usual, I spent the night tossing from one side to the other, attempting in vain to get some sleep. By this time we were finding out that it paid to take cat naps in the daytime, thus making up for a portion of our lost sleep. All this time we could not converse with the Russians with the exception of a few stray words we had picked up on our trips to Siberia complemented by some very eloquent motioning. We were still under the impression that we would continue our journey to Siberia as soon as the weather was good enough.

The eighth of August dawned on a clear day. The wind had abated but the sea was still rough, making it an impossibility to continue our journey. Early in the morning, about eight o'clock, we heard a steady rumbling roar from the direction of East Cape. It sounded like a Caterpillar tractor on a steady pull. Soon there appeared a ship coming full speed—the white foam at the bows becoming visible as soon as the hull came into sight. It soon came to an anchor. A schooner it was, about the size of a southeastern fishing boat but without the booms and with an auxiliary mast at the stern.

The Russians apparently believed in a dashing manner of handling boats, for it came in with scarcely lessened speed—abruptly, the propeller was stopped but the boat kept on coming towards shore with its momentum—then, the propeller was put on full reverse. You could hear the whine of the motor, see the churning of the water by the propeller, and, after the boat had stopped headway and was going backward at a good speed, the anchor was dropped. The boat was stopped with a jerk by the anchor line and then only was it at a standstill.

A small boat was lowered and several men got into it from the schooner. A rubber boat was also put over the side but was not used. It must have been of American make for I have never heard of a Russian rubber boat. The small boat landed on the other side of the point away from us, so we did not have a chance to see who came ashore.

That forenoon Neuvuk with his wife and little son were called. They went up the steep hillside and entered the building that was the one nearest to the sea-side cliff.

This building we later found out was a storehouse. It was built of hewn logs, had two large, strong doors facing west, and had a sloping flat roof. After about an hour had passed they came back, bringing their bags which they had taken along.

Said Neuvuk, "There is an English-speaking Russian up there but he uses language of such a learned variety that I could hardly understand him. The officer also speaks some English, too, but very little. What English he speaks though is easily understood. They wanted me to interpret for them but because I could understand so little of the interpreter's English I recommended you, Roger."

As one of the older women, Ummanak, was going up, I accompanied her. We entered a small room. The only furniture was a sorry-looking plank table and three chairs. The new arrival, a captain, sat in one chair behind the table facing the door. The interpreter, who had arrived with the captain, was standing, and so was the officer who had conducted the examination the other day.

The captain was small, standing about five feet four or five inches. When he took off his cap, which was the same type worn by all Russian soldiers—green with black visor—a thin blond-like fuzz showed in a semicircle above his ears. The rest of his scalp was bare, showing white like a giant cue ball. Regular features marred only by the sudden downward slant of the tip of his nose. His chin was cleft with well-defined lines at the corner of his mouth and eyes. Eyes of a very penetrating grayish-green, rather bushy eyebrows, a mole on his left cheek, and with predominating V's when practicing what little English he knew. Well but stockily built with square shoulders and no belly, he wore his clothes well. He wore his insignia on his jacket and great coat. The bar he wore on his shoulder had two starts crosswise and two smaller ones lengthwise and in towards his collar. All his brassware had the hammer and sickle showing on it. Age was about 45.

The interpreter stood about five feet nine with shoulders hunched from long periods of poring over books (my opinion), of rather slim build but not skinny, wide shoulders, light complexion, round jutting jaw, brown bushy, wavy hair, regular features, in the habit of smiling like one who would apologize and wants to be liked when addressing a person and this smile apparently ever-ready, and with brown eyes. He stuttered when translating from Russian to English, but very little when speaking Russian. His English was of a variety I would call academic, that is, stilted, showed familiarity with words one would run

across in a textbook in college but rarely used in everyday English, with mispronunciation of certain words like judicial, which showed a lack of practical experience in everyday English. By his dislike of American cigarettes (too many chemicals) and his use of English I guessed, rightly, that he was academically trained in English, but not in American schools. (I later overheard him tell some of the officers that he was educated in Manchuria.) His clothes were of the same type worn by the common soldier—cheaper quality cloth and shoes than the officer. His age was about 25. Later, when I asked him about it, he said that the officers commanding the station were ranked as senior lieutenants, the officer in charge of the investigation was a captain, and he, himself, was a private.

We were asked to pull the stuff out of our bags and they were gone over very methodically. An actual count was made of the pieces of tobacco, pipes, chewing gum, etc. A list of everything was made—pipes, cloth, socks, gloves, needles, thread, all bundled, tagged and set aside. The person who owned them was told that the articles taken from him would be returned when he was about to return to Little Diomed. They told us, very emphatically, that we were not being robbed but that the articles withheld would be kept intact for us.

Our answers to their questions of age, date of birth, birthplace, occupation, marital status, political beliefs and affiliations, economical status (rich or poor), number of houses, dogs, skin boats, small skin boats, sleds, radios, wind-chargers, rifles and shotguns owners were written down.

When it got to be Frank Okpealuk's turn to be inspected, he went up and did not come back. We were correct in guessing that he was being held a prisoner. Their reasons? Frank was a veteran but a harmless kid. That put our apprehensions up another notch—we knew by now that we were not going to Siberia, and here was one of us a prisoner. We were prisoners also with guards around us but he was being kept apart from us. Old man Okpealuk's face became lined with worry—he said more than once that God only knew what he would do now—the boy's mother was blind, the two older sons were away from home, and now Frank was taken away from him. At this time I told the others not to worry too much (worrying did no one any good), that given time our trusted government would come to our aid. Was it not a certainty that our armed forces were the strongest in the world?

And so to our rocky beds we went that night. By that time my left eye was a sorry-looking mess, red and swollen

from lack of sleep, and I could hardly see out of it. The others were starting to show signs of worry and lack of sleep by their haggard faces.

The next day—it's remarkable how dawn will eventually come regardless how slow time passes—we were sitting on the rocks whittling play boats and some of the women were seeking for seaweed on the beach when down the hill came the English-speaking Rooski.

"Mr. Albert," he says, "Please come with me and take your wife and son along. You may take your bedding and all your stuff with you."

And that was the last we saw of Albert (Neuvuk) and his family for a long time. They were prisoners also.

All of this time we had been feeding on some of the stuff the Russians had brought us and were having a great deal of difficulty adjusting ourselves to the different types of food. The small amount of pilot bread we had taken along was gone, and we had to eat *klyeb*—or leave it alone. Some of 'em got smart and peeled the portion that was done, leaving the core. "Look," said one of the boys, and we looked! He was having difficulty pulling his knife out of the portion left after he had peeled off the crust. After cleaning the knife to which was sticking a mass of uncooked dough, he rolled the remainder of the bread into a ball about eight inches in diameter. It was so heavy you could have knocked out a young bull walrus with it, and it was sour—so sour that a person could smell *klyeb* as soon as he opened the flap of the tent to enter. Each of the loaves of *klyeb* looked as though a major eruption had occurred in the baking process and the top middle of the loaf was broken open the whole length with a rough ridge tipped with black.

We were still drinking the American coffee we had taken along. We did try the Russian coffee, but it was like diluting water with dry powdered black mud. The rice looked like some of the cheaper grades of rice and was edible, but the oats were very similar to some we used to see in Billy Rowe's barn in Nome, unhusked and pointed like spears. The salted salmon they gave us were salted whole with just the guts taken out, and it used to take us about three days to get the salt out of them. But—we were getting by on the food, no one was complaining except for the lack of seal oil to go with some of the food. And to each of us, the morrow would be the one in which we would go home to our loved ones.

On one of those fine days I was sitting with the others whittling on a play boat with lines of a "Belvedere." I

turned to Okpealuk and said, "Wouldn't it be nice to have a really foggy dark night and shove off and go home?"

"Yes," said Okpealuk, "a very good idea."

Said Kakeek, "You keep on thinking up such ideas as that, carry them through, and before you know it, you will have all of us shot full of holes."

And we all kept on whittling sailboats.

Well, sir, it was my turn. Simon came down the hill, sweat coming down his usually pale face, spat on the ground a few times, and in an excellent imitation of the interpreter's voice said, "Mr. Roger, you may go up next." In an aside he said, "Pretty good! Six hours, taking time off for meals! Pretty good! All right, all right, all right—"

I did not know what he was muttering "pretty good!" for, but I suppose he meant the length of time he stayed up there in the Russian camp. Up the steep hillside I plodded, blowing like a walrus coming up for air. The sentry motioned me to enter the largest building in camp and in I went. The officer who had examined our stuff was in the little room. He motioned me to a very squeaky stool in front of a table, and there I sat down.

I looked around me: furniture was a table facing away from the window, two single beds on each side of the room, a small table by the window on which was a roll of paper, a few books, etc. Hanging on each side of the room were coats, jackets, and caps belonging to the men occupying the room. There was a closet to the left and behind the brick stove a lot of gear was stored.

Glancing toward the bed to my left, I noticed four very large and fat maggots wriggling around. I motioned the officer in that direction and he brushed them off with his hands, then he stepped on them. The bursting bugs sounded like a walrus hunt—"Boom! Boom! Boom!" Officers' quarters!

The captain and his interpreter came in. The captain sat down in the chair behind the table and the interpreter stood in front of the bed. "Plunk" fell a fat white maggot on his head! I wish you could have seen the faces he made while trying to brush off the aerial invader. He finally got it off and stepped on it to the tune of a big "blopp."

This was my first introduction to the official residence of the officers in charge of the station, which was now also the office of the investigation. Many would be the times I would be summoned with a "*davae kokdom*" or a "*pajom*!" and would enter the presence of the captain with various emotions ranging from relief to apprehension.

The captain told me to sit down in English and I obeyed. His gaze was piercing, so whenever a question was asked, I would look at the interpreter as soon as I could. I thought the captain would know whenever I tried to evade the question or to give less information than I knew. It was fortunate for me that my ignorance of Russian lessened the brunt of his questioning and the penetrating quality of his piercing eye.

Taking the roll of paper from the table beside the window, the captain cut off several sheets about twelve inches long. Then he creased each sheet about an inch from the edge and wrote something while the interpreter and I remarked about the weather, etc. The man thought it very cold and certainly indicated it; he was shivering. To make him feel better, I told him that the next few weeks in October and November would certainly show him typical Bering Sea fall weather. "Well," said he, "I certainly prefer it to the south."

"*Tahk!!*" "According to the Article 95 of the Russian Penal Code, you are hereby warned that any falsehood you may tell in answering the following questions will be punishable by two years' imprisonment and you will hereby sign as stating that you have been so advised."

This was my introduction to this investigation as carried on by Captain Kedorf or Kedorg. This was the preamble to every period of questioning for the so-called "protocol," a signed statement wrung out of us victims by supposedly simple questions and answers—but which actually was the result of hours of questioning, insinuating, and threatening. Thus they would very likely start by asking about a man's occupation and end up asking about the man's cousin's temperamental disposition.

Thus having given me fair warning, the duo started out ladling questions. The captain asked the questions and wrote the answers down in longhand. A tedious job—and the hell of it was that the interpreter could hardly read it for translating at times. It probably got worse when the room got so dark from tobacco smoke that one could hardly see the man across the room. When offered a smoke, I accepted it in order to conserve my small supply of cigarettes. Then all of us would get a light from the same match (matches were just as scarce to them as silver dollars are to me).

I was asked as to the place of my birth, family, marital status, number of children, where they were born, the number and names of my relatives living, mother, sisters, brothers, occupations, ages, whom they were married to,

and the occupations of their husbands and wives. They wanted to know the number of dogs I owned, boats, sleds, and if I owned the house I stayed in, and the number of houses I owned. They wanted to know the names of the village councilmen. They wanted to know what governmental positions I had held in the past, what different occupations I had in years gone by, and if I was a member of the village council. Of course, all of these questions were not bombarded at me all at once, but each session was filled with questioning of the same type.

But most of the first day of questioning was one in which my friend Mr. Heinrich, the Alaska Native Service teacher at Diomedes, held the spotlight. Was Mr. Heinrich my close friend? Was it true that he was my closest friend at Diomedes? What was I told concerning his duties? What were his duties? Was it true that he was not getting along well with his wife? I was in a sweat. I was not Mr. Heinrich's best friend and wanted the Russians to think that Mr. Heinrich was not my closest friend, in fact, that he never confided in me. That the only excuse for our association was because of my ability to speak English and the fact that I was the assistant store manager. But you tell them that and will they believe it? *Nyet!* By now I had found out the hard way that making any statement of any kind whatever about any occasion was making an opening whereby they proceeded to try to pry out information. If you stated that you were at a place—they wanted to know what time, with whom, and with what purpose, and what was said, and who said it—and they kept pounding you with questions concerning anything specific until you gave them an answer. My old friend, Mr. O'Neill, a district attorney for whom I used to do some interpreting, would have learned many a new method about questioning from them!

All this time we were smoking one cigarette after another. The captain was trying to drill the truth out of me with extraordinarily piercing eyes, the interpreter would stutter out the question, and for the good of his soul and mine, I would have him repeat the question (it cost him a lot of effort, but he was forced to do it), then I would start in giving my opinion of what the answer should be.

"We are not interested in your opinion on the question. We want to know what the actual answer is—you better tell us or we will get the answer from someone else who knows!" (fair deal), or, "You, with your education, should be in a position to know who is the govern-

ing body in Alaska. You don't mean to tell us that you don't know? You have forgotten? Please try to remember! We know that Mr. Gruening is governor of Alaska but does he control the Coastal Guard? The Army? And are your village councils directly responsible to him? Does he appoint the school teachers? Is the Alaska Territorial Guards under the Army? Is the mayor of Nome head of the Post Office? What is his appearance, name, and personality?"

Such were some of the questions that were hurled at me in the days to come, but this first time we called it a day at 12:30 PM—a seven-hour stretch. And that rickety stool got rather hard to sit on after several hours, so bad in fact that after the captain had seen me in several unorthodox positions, he had the interpreter tell me to sit up straight—I was offending the Russian government by showing a disrespectful attitude to an officer!

Taking the sheets written by the captain (the so-called protocol) the interpreter translated their contents carefully to me. He read each question and answer very carefully, and any corrections to be made were written on the side. I will say this much to their credit—any answer that was not to my liking as written was struck out or corrected till it met with my approval. Then I signed the sheets at the bottoms and at the sides whenever corrections had been made. The last sheet had a notification at the bottom stating that the questions and answers had been translated to me and that I certified my approval of their correctness by my signature.

My parting question that night: "But, Mr. Interpreter, how am I to know that what you have translated to me as being what I have said is the truth? I do not have any way of checking your translation."

"Well, Mr. Roger," he answered, "I, too, am liable for any errors which may be made in this protocol. Therefore, I stand just as much chance as you do of receiving two years' imprisonment according to the Russian Penal Code." Small comfort!

The next night and day was a repetition of the others. By now, all of us had given up any idea of continuing the excursion to East Cape and Whelan [Uelen]. The big question was—how soon shall we be allowed to go home? The tantalizing fact being that our home was only four miles away!

All of us were starting to worry ourselves blue. Endless questions kept pounding through our minds—How long will the Russians keep us?—What will our folks do?—Are we to be taken to the Siberian mainland for imprison-

ment?—What is going to happen to the ones kept apart from us?—Are they being tortured or mishandled in any way?

"What will happen to us now?" Up jumped Kakeek, hands clenched, face a picture of despair, his eyes roving madly from one of us to the other. "Why did I ever come here? We were perfectly satisfied at our village! What are the Russians going to do to us now? Look at us! Every way we turn—an armed Russian guard. What can we do? Oh! Why did I ever...?"

"Shut up," I told him. "You fool; by your raving you are making things worse for the others. Use your head! Try and talk of things that will ease the situation. Remember, you are not the only one under stress. Please try to take things easy. We'll be going home—God only knows how soon, but remember—we are U.S. citizens and Uncle Sam will get us. But it will take time, remember that!"

Most of us were certainly starting to worry. The older folks sat huddled on their seats, hardly saying a word, their faces a study in worry and despair. Brows were wrinkled with deep thinking, worry was our uppermost thought—we knew we should not worry, despair, or do any aimless thinking, but nevertheless we were doing it—each against his better judgment. Knowing that occupied hands meant less meaningless thinking, some of us were occupied with that ancient art of whittling.

A rather irritating and what would have been under other circumstances an amusing incident occurred one morning. The noncom in charge of the guards had come into the tent that morning at about five o'clock, bringing with him three rhinoceros auklets that he had shot with a small caliber rifle. Addressing himself to the only woman up and around, Kazulana, he set about instructing her in the art of making breakfast. None of us could understand Russian, but he set about with a great ado—his speech seemed to consist of "Woh! Woh! Woh!" uttered with great rapidity interspersed with occasional "*starookha's*," "*Tabk's*," "*Kharrashoa's*," etc. He squatted in front of her making motions of plucking, all the while jabbering. In answer, she would shout at him in Eskimo that she was absolutely capable of dressing auklets—"You busybody!" Being unable to understand each other, they were on an even footing. Finally, it resulted in the Russian making a rice porridge with corned beef, which was consumed by the cold, shivering group who had been so rudely awakened.

That day various members of the group were called up the hill. My turn came about five o'clock. Before we go any further let me tell of a plan we had made a few days before—we had decided that we would not know anything

about the different government branches we knew of and that the Russians did not know much about, and I also told them that they could plead ignorance of any government office or function and that they could refer to me as one who might know something about such things. Little did I dream that endless hours of questioning lay ahead of me because of this plan—but perhaps it was worth it!

The captain pulled out a group of typewritten paper out of his desk and read the document which was somewhat similar to this:

The undersigned, Roger Menadelook, is accused of being guilty of breaking Article 84 of the Russian Penal Code by unlawful entry into Russian territory in Latitude—and Longitude—. Accordingly, he is subject to two years' imprisonment in Russian jails.

A subdivision read:

According to articles so and so of the Sessions Laws of the U.S.S.R., we find him untrustworthy, capable of causing disturbances and escape, and therefore sentenced to solitary confinement until such time as his examination has been completed.

I had to sign this document and its five carbon copies as having been read to me and translated.

This time the captain wanted to know if it was true that firearms and other types of shooting irons were manufactured at Nome. This was just a starter. What did I know about the defenses of Seward Peninsula? What type of artillery was there at Nome? What was the number of troops stationed at Nome? Teller? Were the colored troops as numerous as the whites? Was the Army headquarters in town, or where? What was the insignia on the Army cars? Personnel? Did the M.P.'s police the town? What was it they wore that made them easily distinguished from other soldiers? All this time they had a booklet into which they peered once in a while to see if I was giving the correct answer. At any rate, they said "*neprav*" as many times as I made a wrong answer. You see, I am one of those very absent-minded fellows. Some Native Siberians had come to Nome during the last two years during the summers, and undoubtedly they had kept their eyes open for anything out of the ordinary.

At eight o'clock PM they had a recess for supper. Meals were at 8, 2, and at 8. When asked if I cared for something to eat, I, of course, said "yes." The cook brought in a dish of canned salmon and a cup of tea and a slice of bread. After tasting the salmon, I had to be satisfied with a cup of tea and the slice of black bread. You see, the salmon had

apparently been kept long and had become putrid. Within a few minutes the captain and his interpreter came in wiping their lips.

"Did the Coastal Guard have a unit at Nome? Was there one at Teller, Wales, Shishmaref, Barrow, etc.? Was the officer in charge of the station at Nome wearing a dark uniform on the occasion when I went in there ten years ago? Was he wearing a coat or was he in shirt sleeves? Was the phone on the desk of a military or civilian style? Was the wall back of the desk a low partition or a wall? How many vessels are maintained in Nome harbor and of what type are they? What speed do I estimate the Coastal Guard boats to have, and what insignia is used on them? Was there an armed guard stationed outside of the Coastal Guard office? Did I know of any stations manned by the Coast Guard between Nome and Barrow? What is the name of the tribe of Eskimos living just back from the coast between Nome and Teller? What is the depth of Nome harbor?"

"No, do not give us the story that you have forgotten this and that! Recollect! Strive to remember! What date did you last go to Nome? We are of the opinion that you have deliberately forgotten what was what and where was where when you came here. Now let us call this 'compulsory volunteering' (sneer). Now you had better remember or you shall be given cause to regret it. You had better cooperate—if you don't, it will be the harder for you!" And that kept on till 1:00 AM.

"We shall call it a day now, Mr. Roger. Wait! Do not go yet. We have decided that you shall have the privilege of staying by yourself. Perhaps the bedding facilities will not be like that at the Empire State Building, but no doubt you shall have more comfort than on the beach. Yes, Mr. Kakatook, you shall have the privacy that you so apparently need to improve your roving memory!"

The younger lieutenant lit a match, pointed at a sort of bedding, and left. Feeling my way in the darkness, I went to sleep immediately, lying on something furry. The mental exercises of the last few hours had left me exhausted completely.

On waking I took inventory of my new habitation, a tent, six-sided, with an opening to let in light about four feet above the ground. There was an opening at the lower side through which I had come in last night. The whole affair was kept up by a pole in the center. My sleeping facility was a great rough goat- or sheepskin coat, which I used as a mattress, and a thin cotton blanket. To keep

the mattress from direct contact with the cold wet ground were some planks which at one time must have been part of a large box.

"Ohgg! Ohgg!" A soldier shoved in a bowl of salt fish stew, two slices of bread, and a cup of tea. My breakfast. At about 2:00 PM they gave me a bowl of coarse rice, a bowl of thin fish stew and two slices of bread. Eight PM was supper—a bowl of salt fish stew, two slices of bread, and a cup of tea. The slices of black bread I just set aside on the bread dish for future reference, for I could not eat any of it. "Well," said I to myself, "At least they won't starve me, and I'll no doubt get by on what they feed me, at least enough to keep from starving, enough to keep in fit condition regardless of the fact that the food was none too appetizing." On the third day of staying in the tent, a soldier brought my breakfast. "*Xoosha! Klyeba*, yes?" "Yes," I replied, "but *klyeba starri*." "Give," he said, and I gave the plate of old bread to him.

And starting the next day, I got a cup of tea and a couple of slices of black bread for breakfast. For my noon meal, they gave me a bowl of very thin salt fish stew with two slices of bread. For supper, a cup of tea and two slices of bread. All of a sudden, the bread became a tasty dish to me, and there was none left over that night. Occasionally, about once a week, they would give me a bowl of soup in the morning and sometimes a bowl at night. But I am willing to bet that that was just to fill in the report—"Prisoner well fed. Three square meals of salted fish stew a day. *Pravda!*"

Although I wore a parka continuously, I was cold all the time. I would attempt to warm up by pacing back and forth in front of my tent, but I was getting so little to eat that I would get tired in ten minutes. It was warmer to lie on my goatskin coat and turn my mind into a blank. But in a few minutes, out I would go again to see if I could not warm up again.

At the end of the second week in solitary confinement, my tent was taken down and some civilians, probably employees of the Russian Weather Bureau, took it along with them when they left for Siberia with some Natives from East Cape who had arrived in two whale boats. The two soldiers appointed to set up a new tent for me attempted to join two waterproof sheets five feet square over a length of iron pipe, but the result showed so little promise of weatherability that I showed them the tarpaulin which was still in one of our skinboats. With this we set up a tent about six feet long and just wide enough so I could crawl into it, and high enough so I could not bump into it when I got

up on my knees. The holes I patched up by filling them with grass. I have been miserable before, but never as bad as I was the next two weeks. The weather turned cold, ice came from the north until it was but a few miles from the island. All this time I was shivering from cold and hunger. I was so hungry that I could have eaten anything edible. The pit of my stomach was continually aching. And to make things worse, the Russians guarding me would see me shivering, and make remarks like, "*Dahmyer?*" "*Collidna?*" "*Deplo?*" (Feeling cold? Cold? Frozen stiff?) The Russians also have a sense of humor.

By now the ground was frozen to a depth of several inches. Another tent was pitched while I was being questioned one day. This one was a square brown army tent, about five and a half feet square. Covered with my tarpaulin, this was much more weatherproof than the other one. They also gave me material to make a seal oil lamp—a tin affair. The seal oil lamp provided a great deal of warmth when the wind was not blowing and also provided the means by which I could make a cup of coffee. Luckily, I had a pound of coffee in my duffle bag. While this coffee lasted, I had real American hot coffee each morning, and when that was gone, I had warmed up water which seemed to give me a little warmth, but which did not stop the gnawing feeling in my innards. By the light of the seal oil lamp I made model boats out of pieces of box lumber I saw around, geared with portions of electric light wire and covered with Russian box match covers.

During this whole period of solitary imprisonment, my captors' sole enjoyment seemed to be that of questioning us. There were periods of three or four days when they would question me as soon as they had breakfast and the questioning would finish only around midnight. I suppose when they were questioning some of the others they would perhaps give me a day or two of rest. Neuvek (Albert Iyahuk) and I were in solitary confinement and our dwellings were close to each other. A guard was on continuous duty, watching our every move, reporting every questionable motion; for instance, one day, the weather being fair, I went outside feeling in an unusually good mood—seeing Simon and Sophie outside of their tent, I waved them "Good Morning"—and, believe it or not, the whole bunch of us was accused of attempting to signal each other! The others told me later on that the one guarding them would at times look at Neuvek and me through a pair of binoculars. A distance of less than a hundred yards! I could hear the

movements of the guard at night, even when he struck a match or took a deep breath. They certainly made certain that we would not escape. Most of the time I was awake I would think of escape, devising ways and means of escaping, but I would get stuck when I thought of the others; there was never enough time for all of us to make the try. Unconsciously, I believe that I was saving the final attempt until it turned out that return would become an impossibility, then the only thing to do would be to get a favorable time, then try.

As I have stated before, my emotions in being called for questioning ranged from apprehension to relief. Paradoxically, when it became cold, I welcomed the chance to be questioned and therefore to match wits with the captain, for it afforded a change from my cold tent to a semi-warmed-up room. The room in which I was questioned swarmed with cockroaches—a strange thing in an isolated camp. But nevertheless they were there—long, brown things that slithered here and there on the floor, desk, and on the persons of my questioners. One must have been fond of ink, for it would crawl into the captain's inkwell, and he would have to drive it out with his pen. A Flit spray gun would have made the place bearable, but they told me that they had no means of eliminating the pests. Thank God, we don't have them on our island—our women would have fits!

Some additional questions: What was my personal opinion of my fellow villagers' characters? What was the difference between ancient and modern methods of seal hunting? Were such facilities as landing strips, auxiliary landing fields, military installations, oil tanks, machine shops, stores, bars, restaurants, available at Nome? Where were they located, in what quantities, and who were the proprietors of the personally owned public places? They would consult a blue print while they were questioning me about the town, and, whenever my memory betrayed me into giving a wrong answer, they would shout "*neprav*" into my face, and the interpreter would admonish me to polish up my memory. Once they asked me how much I owed in our community store. I stated the first amount which came into my mind. "*Neprav!* We know it is four times the amount and will you admit it upon your memory being refreshed?"

"Well," said I, "what benefit does the Russian government expect to get from this information about my poor lowly personal affairs?"

"Ohgg!" roared the captain. "You will please answer my questions correctly! You—you are the one being ques-

tioned and have no business questioning us. So, put out your cigarette. No more smoking for you—and sit up straight. Brush up your memory—or it will be the worse for you!" The captain had his dander up more than usual! There were times during the questioning when it seemed to me that the men seemed dissatisfied with being in the Russian Army. They would ask about things that had absolutely no bearing on our trip or other things. For instance, one day the captain asked what "Coca-Cola" was. He had heard so much about it!

By the time we were there a month, the captain and his interpreter were out of tailormade *papirosi* and were rolling cigarettes out of the coarse Russian *mahorkha* tobacco. The best paper (or so they told me) in camp was sheets of the official organ of the Soviet Empire—*Pravda*! A feller can go a long way to get a smoke!

Rap, rap, rap, a knock at the door.

"*Da! Da!*" said the captain.

"*Pashalista*, Captain!" And in came a soldier bearing in his arms a bunch of kindling. He was a rough, thick set, uncouth specimen of Russian soldiery—big hands red from raw, rough work and exposure. But he came in slowly in an apologetic manner, acting as though he would be blasted by a blast of lightning from the captain. If manners could talk, his plainly said: "I beg your pardon, O most illustrious son of heaven and foremost disciple of Stalin—Please let me brush some of the dust off of your boots and let me rub my forehead with it. Please do not kill me for coming in!" He mumbled a few words to the captain, who answered, "*Da. Da.*" He built a fire in the red brick fireplace, using the kindling to start the fine coal used for burning. All the soldiers with an exceptional one or two noncoms acted in this lowly, debased, humiliated manner when coming into the presence of the officers. From my observations I would say that the Russian Army practices very strict discipline. The enlisted man dreads and fears his superiors—the majority of them come into the presence of officers like a dog who has been beaten before but nevertheless fawns to his master. This may be true of all relations between officers and men, but the soldiers I have seen were in perfect physical condition, a result of constant exercise, hard labor like hauling wood up from the beach, carrying their winter's supply of granulated coal in sacks up the steep hillside, long hours on patrol duty, and doing a lot of work which in American camps would have been done by machinery.

On the sixteenth of September I was told to join my companions, so taking my blanket and sheepskin coat

mattress, the toy boats I had whittled for my little son, and my bag, I went over to the tent where the others were staying. I made two trips for my stuff, even taking the grass my mattress had lain on.

I entered the tent. Seated in a semicircle, huddling around what little warmth was given off by a small circular iron stove, were the younger folks. It was cold, for the ground was now covered with snow. The side of the stove was red hot but the heat extended only about three feet from it. Outside the circle surrounding the stove were others who had no room, some who had blankets covering themselves with them for warmth, all wearing parkas. It was one of the most pitiful sights I have seen. Everyone's face was startlingly thin; the older men's faces were covered with sparse beards and mustaches, which could not hide the sunken cheeks. The women looked like they had been bedridden. Hardly a smile was given in answer to my greeting—it even seemed to me that smiling came hard to them. They hardly moved, each movement being slow, so slow that even the younger folks seemed to have aged. The interior of the tent was filled with a continuous disturbing silence. The only one making any noise or talk was the baby son of Neuvuk. He was just starting to toddle alone and was filled with a great hunger—always crying for “*nigozaming*,” “*sakkariming*,” “*immooming*,” “*soupozaming*”—meat, sugar, milk, and soup. Whenever the poor child got some soup he would eat so much that there was danger of his bursting—but he still wanted more and more. Of milk, meat, and sugar, there was none, even though efforts had been made to obtain some from the Russians.

About ten o'clock some Russian ersatz coffee was brewed. It was the only thing given to them whenever they asked for it. There was no tea. This so-called coffee was drunk with a few roots which the women had hoarded. No bread. The two small cups of ersatz gave us a feeling of warmth and perhaps enabled us to have patience enough to wait for the meal of the day. This meal was brought to us about four o'clock. A soldier handed in two and a half loaves of bread and another shoved in a small tub of salt fish stew. As soon as the soldiers left, prayers were said, and we fell to. One cup of thick fish stew with pieces of fish in it was ladled out to each person the first time. The second cup consisted of soup. The soup being gone, coffee was now poured into the unwashed cups, two small slices of bread were given to each person. You see, one loaf was saved for the breakfast. This had

been the procedure, so I was told, since they had moved up from the beach a month before. It was no wonder that they were in such a pitiful condition—but they told me that I looked like I was in no condition to enter a beauty contest myself!

About 4:30 the next day came the summons: “Mr. Roger, will you please come along?” So I went with the interpreter to the office of the questioners. After a few seemingly useless questions as to where we hunted in the winter, the captain fished out some typewritten sheets which I recognized as documents. I know my face blanched, my heart jumped up suddenly and was stopped only from going through by my neck being in the way. Here it was! The captain would tell me I was sentenced to serve imprisonment in Siberia. I would not see my wife and family anymore. I was doomed! It was the only time I temporarily gave up confidence in Uncle Sam and thought that my God had forsaken me. But, thank God, it was a release, an official statement that proceedings against us were suspended. I signed the original and its five carbons. Then the captain with a crew of a lieutenant, two interpreters (one Native), and an extra guard went to the tent in which we were quartered. It was pitch dark within and by the light of one of our flashlights I interpreted the document after it had been officially read in Russian. My companions were routed out of the makeshift beds they had been lying on. Then they signed the documents.

When the Russians left, we all said our prayers—but it was a very, very long night.

The next day dawned clear, no surf, dark cloud banks to the northeast, wind north, very few white caps where the current was strongest. The captain and the station commander came and looked at the sea, had us break camp and told us to go to the bath house for inspection. We went, taking all our personal belongings with us. I was first. I removed my parka, they felt in all my pockets, looked into my boots, inspected what stuff I had left, then, after returning the articles they had taken from me when I first arrived, they had me sign some more papers. Another took my place, and then another when the other was done. By now, the Russians were hurrying us through. The men who were done were told to take their stuff down the beach. The women were inspected by the only woman in the camp. She was an employee of the Weather Bureau, and, I think, married to the man in charge of the station. They were now rushing us through with hardly any in-

spection—just as anxious to get rid of us as they had been anxious to keep us.

But the cloud bank to the northeast broke on us to the tune of snow squalls with accompanying wind. In just a few minutes the sea in front of the beach was so bad that we just took back our stuff up the hillside, set up the tent again, and settled down to the old routine—bitter disappointment our lot.

The wind increased until it became a typical fall gale in the next few days. Huge breakers were splashing on the rocks below us, sending up clouds of spray, and to venture outside meant having a strong wind blow salt spray into your face. Our fare was increased to three loaves of bread a day—the extra half loaf must have meant quite a concession to the Russians. I also obtained about two pounds of flour by consistent bumming from the supply soldier. This made a porridge which was a welcome addition to our fare. Twice during that week we asked for permission and were allowed to go down to the beach to gather some pitiful fragments of seaweed. These were not much to look at, much less to taste, nevertheless they gave us a feeling of partial fullness. The seaweed and the porridge really kept us alive that week.

One of the days after I had joined my companions, Frank Okpealuk came in with a sort of excited look. “There is a fish by the path leading to the beacon. The dogs must have brought it there for some of it is chewed.” It did not take much encouragement to get Alois, the youngster, to fetch it. It was a fish the size of a large humpback salmon. Annie, the wife of Neuvuk, cut off the portions that had been chewed on, and what was left was about half a fish which she cleaned and cut up into small portions which we had raw with our coffee about an hour afterwards. Portions of it were salty, some rotted a little, but we were so hungry taste made little difference to us. At home, we would have thrown the whole shebang away.

Very early on the morning of the twenty-sixth of September someone called us from outside the tent. I went out immediately, for I had kept stove watch (kept the stove going since midnight to keep the others from freezing). It was the interpreter. He asked me if we thought we could make it to our village, and as the wind had lessened a great deal and the surf subsided, I said “Yes.” “Well,” he said, “get everybody up and get ready to go. We are afraid the wind will shift again and make it impossible for you to go.” So, I roused everyone, and, as we had nothing to eat,

asked for a loaf of bread. I received a half a loaf and we had to be satisfied with that for our breakfast. Breakfast over, we again broke camp and got ready to go.

We got our boats as close to the surf as we could without spray falling into them. We were fortunate that several Russian soldiers helped us move the boats down from above high water line. Once in position, the captains of our boats, Elasanga and Okpealuk, attached a long stick to the stern of each boat. At a sign from Okpealuk, Elasanga’s boat was shoved out into the surf, the long poles serving as means of giving a good shove. The momentum of the shove aided the paddlers in reaching a stretch beyond the breakers. The women had been put into the boat to get them out of the way and ready. Now it was our turn. Putting Puneatuk and Ummanak, the two old women, into the boat, we got the skin boat into position for shoving off. I was stationed at the bow to fend off in case the boat started to turn, an oar in my hands. Okpealuk, his son Frank, and Simon were ready at the stern and the sides. Five Russians stood ready at the pole to shove us off. Okpealuk gave a sign to shove the boat still closer to the water, but the Russians took the sign as a signal to shove off. Forward we went, gaining momentum each moment, the Russians running ahead with the pole. Paddling for dear life, we gained the safer region outside of the breakers. Only then did I look around—the two dear old women were paddling away, and they were not doing a maybe job about it. The other boat was the first to start its outboard, and we were towed halfway to Little Diomed before ours started.

Rounding the north end of Big Diomed, we came into sight of our island home. How familiar it looked! And how homelike! Why, even its steep sides seemed to have a “Welcome Home” look. And strange was the fact that a ship was anchored in front of our village. It was the *North Star*, the government ship that as usual was bringing the annual supplies for the school and the community.

The rocky beach became alive with people as we approached and many willing hands were there to help us. Everyone was filled with joy, for we had been given up as being taken to Siberia for imprisonment—they did not know what had happened to us. Many tears were shed, but they were tears of joy; perhaps our long absence from our families caused them, or maybe it was the weakness of body caused by the long period of semistarvation which caused us to break down.

Very kindly, the nurse on the *North Star*, Miss Gaddie, sent for us to go aboard. X-rays were taken and a physical

check-up given each one of us. The average Eskimo does not have any extra avoirdupois—and we were no exception—but each of us had lost from ten to twenty pounds. Only the younger men helped a little with the unloading, but the rest of us were too weak. Our legs were wobbly, our movements slow; I think most of us were close to being seriously sick.

Food—which had been the main source of our conversation, the subject of our dreams, now became a reality—but also a mockery. It was a month before we could eat a whole meal with impunity, while most of us complained of some minor ailment. The return trip of the *North Star* brought Father Tom Cunningham as a passenger. In the manner for which he is well known, he had laid aside all his duties—he is chaplain of the Army Post at Nome and was to be stationed the coming winter at King Island—and had come as soon as he had heard that we had returned. He was anxious to see how we were after being kept by the Russians. As usual he had brought some gifts for the children. No wonder he is called *Uttatuk* (Father) by all of us seagoing Eskimos. To his numerous friends he is Father Tom, and to be called a friend of his has its meaning. To us Ingalit of Little Diomedé he is one

of us. He talks our dialect, he has built the church on our hillside, he has taken care of us when sick, and he has hunted with us over the hazardous moving arctic pack ice when food was scarce in the village. We know that he is lent to the King Islanders for a short time by whoever is his boss and some day will return home.

From information we gathered, we found out that information had been sent us of Little Diomedé not to make the Siberian trip this summer, that the permits were not in use any more. But instead of wiring the information to us, an employee of the Alaska Native Service had mailed it! He, no doubt, was so ignorant of our part of the country that he did not know we were lucky to get mail three times a year.

On October 19, 1948, after a hunting trip in a skin boat for ducks and seals, I came down with symptoms of what the nurse, Mrs. Morgan, called T.B. Since then I have been in bed, but my spirit has been out there hunting with the other men. And, very kindly, the Alaska Native Service at Juneau has been sending some relief for me, my wife, and two small sons, which has been of great help in our time of need.

APPENDIX

Roger Menadelook's manuscript was not annotated for the express purpose of retaining its original tone and narrative flow. This appendix is intended to clarify or expand on parts of the text that otherwise would have been annotated.

LITTLE DIOMEDE CAPTIVES

Fourteen of the eighteen captives are specifically mentioned in the manuscript. Some details of their identities were provided by Eileen Norbert (personal communication with Ken Pratt, March 2013 [via Matt Ganley]).

Neuvuk: Albert Iyahuk

Annie: wife of Albert Iyahuk

The "baby son" of Neuvuk and Annie: Glenn Iyahuk

Ummanuk: an elderly female in 1948

Alois: Alois Akvaluk (nephew of Albert Iyahuk and uncle of Eva Menadelook)

Okpealuk (Old Man Okpealuk): captain of one of the two skin boats in which the Little Diomede people were traveling; also the father of Frank Okpealuk.

Frank Okpealuk: son of Okpealuk

Kakeek: male

Simon: husband of Sophie

Sophie: wife of Simon

Kazulana: female

Mr. Kakatook: Kokituk (the Inupiaq name of Roger Menadelook)

Elasanga: male, captain of the second skin boat of the Little Diomede captives.

Puneatuk: an elderly female in 1948

OTHER PEOPLE

Captain Kedorf (or Kedorg): the top-ranking Russian officer and chief interrogator of the Little Diomede captives at Koonga.

Mr. Heinrich: Albert Heinrich, an anthropologist who served as an Alaska Native Service/BIA teacher on Little Diomede for around three years, ca. 1945 to 1948 (Peter Schweitzer, personal communication with Ken Pratt, October 2012 and December 2013).

Mr. Gruening: Ernest H. Gruening, governor of the Alaska Territory (1939–1953) and later U.S. senator for Alaska (1959–1969).

Miss Gaddie: Clara Gaddie, RN: *North Star III* ship's nurse (1946–1949); when the ship visited Alaska villages she typically went ashore to inoculate and give physicals to local children and adults (Barbara Shaw, personal communication with Ken Pratt, December 2013).

Father Tom Cunningham: a Jesuit priest in northern Alaska for twenty-five years, he became a fluent Inupiaq speaker, lived on Little Diomede for eight years (beginning in 1936) and built the island's first church, St. Jude (e.g., Llorente 1969:67).

PLACES AND THINGS

Ingalik (*Inaliq*): Little Diomede Island (and the village Ingalik); the plural *Inalit* refers to the people of Little Diomede (Larry Kaplan, personal communication with Ken Pratt, December 2013). The island was formerly also known as Krusenstern Island.

Big Diomede Island: *Imaqtiq*; the plural *Imaqtit* refers to the people of Big Diomede (Larry Kaplan, personal communication with Ken Pratt, December 2013). The island is also known as Ratmanova Island.

Koonga (Kunga): a Russian border post established ca. 1940 on the north end of Big Diomede Island, at or next to a former Native village of the same name. Kunga village was abandoned between ca. 1895 and 1905, when all of its residents moved to Little Diomede (Igor Krupnik, personal communication with Ken Pratt, September 2013; cf. Krupnik 1994).

East Cape (Cape Dezhnev): located on the Chukchi Peninsula in far eastern Russia.

Whelan (Uelen): a Siberian Native village near East Cape.

North Star (*North Star III*): a Bureau of Indian Affairs freight ship built in 1945 and used in the "Alaska

Resupply Operation”—a program that provided groceries and other cargo to Alaska coastal communities.

The ship was decommissioned in 1984.

Flit spray gun: a hand-pumped sprayer used to dispense the insecticide brand Flit.

SELECTED TERMS

Assistance with translations of some Russian language terms was provided by Richard Bland (personal communication with Ken Pratt, December 2013).

gendarmes: soldiers, police officers

pravda: “the truth”

neprav: “false, inaccurate”

Pashalista: “you’re welcome”

davae kokdom (Davae kakom): “let it happen” (?)

pajom (paidyom): “let’s go”

starookha: “old woman”

kharrashoa (kharasho): “good, okay”

xoosha (horosho?): “good”

papirosi (papirossi): strong, filterless Russian cigarettes

mahorkka (mahorka): a type of cheap smoking tobacco found in Russia

ersatz: “substituting for”

uttatuk (*ataata*): “father”

avoiidupois: weight

T.B.: tuberculosis

Note: included with the 1959 Associated Press photograph of the Diomed Islands was the following statement:

At this point in the Bering Strait, only 3½ miles of frozen water separates the United States and Russia. The island in the foreground is American-owned Little Diomed. Just beyond is Russian territory, Big Diomed Island. Almost lost in the mist is the Siberian mainland. Though they could easily walk across the ice between the islands, the Eskimos living on Little and Big Diomed do not visit. The last time American Eskimos went over to Big Diomed was six years ago. The Russians held them for 45 days. The international dateline runs between the two islands. When it is Thursday on Little Diomed, it is Friday on its Russian brother.

This statement is inaccurate with respect to several key details of the Little Diomed peoples’ captivity by Russians on Big Diomed: i.e., the event took place in 1948 (not 1953) and the people were held captive for fifty-one days (not forty-five).

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THE ARCTIC SMALL TOOL TRADITION ON COOK INLET: THE MAGNETIC ISLAND SITE, TUXEDNI BAY, ALASKA

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ABSTRACT

The Magnetic Island site (Tuxedni Bay, Lower Cook Inlet), excavated in 2012, provides the first evidence for an Arctic Small Tool tradition (ASTt) occupation on the west shore of Cook Inlet. Dating analyses indicate a relatively brief occupation period of ca. 3400–3800 cal BP. Tephra deposits capping the cultural levels suggest that environmental impacts resulting from volcanism played a role in the cessation of the Magnetic Island occupation. Data from this project expand our knowledge of ASTt dispersal in southcentral Alaska and provide a potential link between previously known sites on the Alaska Peninsula and in Kachemak Bay.

INTRODUCTION

KEN-00324, the Magnetic Island site, is located in Tuxedni Bay on the west shore of lower Cook Inlet, Alaska (Fig. 1), within the boundaries of Lake Clark National Park and Preserve. The site was initially tested during a National Park Service survey in 1996, revealing two superimposed hearths within a cultural zone radiocarbon dated to about 3500 ¹⁴C years BP. The two hearths present in the 1996 test unit were marked by charcoal, lithic debris, and hearth stones (Crowell 1996). In September 2012, a team of archaeologists undertook more extensive excavations at the site in order to document its physical condition and to collect sufficient data to evaluate the site's significance and nomination to the National Register of Historic Places (Rogers et al. 2012).

The age of the cultural component at KEN-00324 makes data contained in the deposits very valuable for reconstructing the cultural chronology in Cook Inlet, especially for the western shore of the inlet and the region north of Kachemak Bay. A gap exists in the culture history for Cook Inlet between ca. 4000 and 3000 BP, particularly in the upper Cook Inlet area (Reger 1998; Workman 1998). The presence of an Ocean Bay II occupation sometime in that period comes from undated, scattered artifacts, as well as an Arctic Small Tool tradition (ASTt) occupation in Kachemak Bay dated to ca. 4000 BP, but there are no previous well-documented collections dating between approximately 4000 and 3000 BP. Filling that gap in the cultural framework is a major contribution from KEN-00324.

LOCATION AND ENVIRONMENTAL CONTEXT

Magnetic Island is located on the rugged north shore of Tuxedni Bay, approximately 14.5 km west of the north entrance to the bay (Fig. 2). The archaeological site, KEN-00324, consists of a group of distinct surface depressions situated on a rocky platform on the southeast corner of the island, approximately 14 m above current sea level. The high rocky feature on which the site is located connects to the larger, 152-meter-high Magnetic Island prominence via a low ridge. The ridge has the appearance of a tombolo feature from a time when relative sea levels were higher. The surrounding vegetated tidal flats become submerged during the highest tides, and margins of the flat platform are vertical rock cliffs with access to the tidal flats at only a single steep approach.

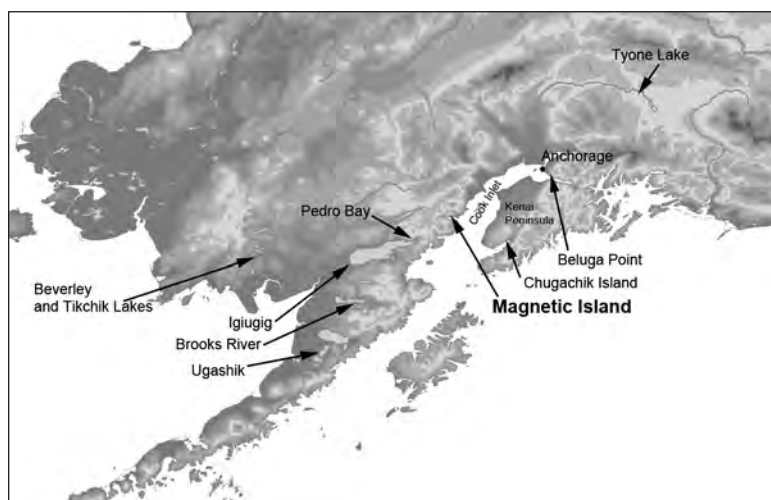


Figure 1. KEN-00324 site location on lower Cook Inlet, Alaska.



Figure 2. View of Magnetic Island from Tuxedni Bay.

The island bedrock was mapped by the U.S. Geological Survey in 1951 during an investigation of reported deposits of magnetite on the island, hence the name (Grantz 1956). The dominant bedrock in the vicinity of KEN-00324 was identified as intrusive quartz diorite with adjacent, more extensive outcrops of quartz monzonite. Redoubt Volcano is located approximately 28 km north of KEN-00324 and Iliamna Volcano lies 25 km to the south (Fig. 3). Both have contributed to the complex surficial geology of the area.

The glacial history of the Tuxedni Bay area is poorly understood due to a general lack of glacial deposits. Detterman and Hartsock (1966) mapped late Pleistocene and Holocene glacial moraines near the present terminus of Tuxedni Glacier, some 9.5 km northwest of the site. A small remnant moraine attributed to the Naptowne Glaciation is located on the north shore of the bay, and some Naptowne-age deposits are mapped in drainages entering Tuxedni Bay from the south. None of the latter mapped units reached the bay, as they are obscured by more recent alluvial and colluvial deposits. The end of the most recent stage of the Naptowne Glaciation is dated in other parts of the Cook Inlet basin to about 11,000 years ago (Reger et al. 2007). Moraines of the Alaskan Glaciation of Holocene age are located close to the present terminus of the Tuxedni Glacier (Detterman and Hartsock 1966). The Alaskan Glaciation has been dated on the Kenai Peninsula from about 5000 to 2500 years BP (Karlstrom 1964). Presence of glacial ice may have restricted human passage through the upper Tuxedni Bay valley during the occupation of KEN-00324, but the ice would have remained at least 9.5 km from the site location. Access to the Iliamna Lake area via the Pile River drainage may have been possible during Alaskan Glaciation advances, although travelers would have probably encountered some glacier traverses.

Evidence of volcanic activity in the vicinity of Redoubt Volcano during the middle to late Holocene has been well documented (Schiff et al. 2010). The Holocene eruptive history of Iliamna Volcano has been much less studied and seems to have been less active than Redoubt Volcano. Lava from Iliamna Volcano flowed primarily south and east during the

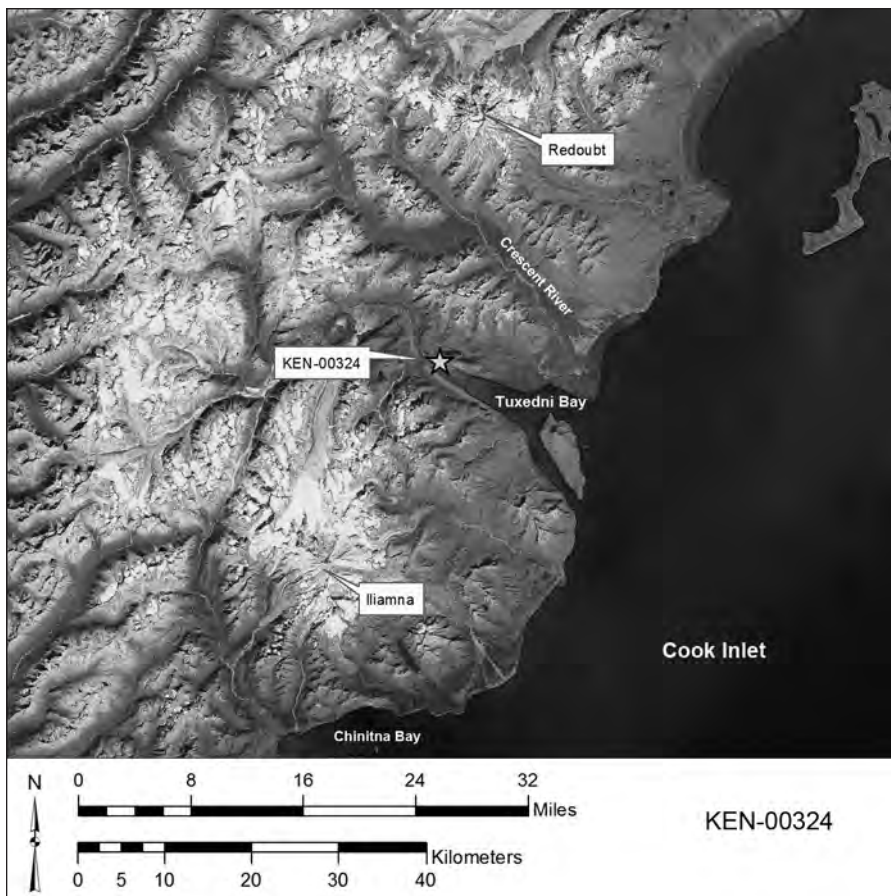


Figure 3. Site location in relation to Redoubt and Iliamna volcanos.

height of the Naptowne Glaciation, the last major glacial episode (Juhle 1955). Naptowne-age till in the Red River and Johnson River drainages contains high percentages of Iliamna-derived lava (Detterman and Hartsock 1966).

Redoubt Volcano, located 28 km north of KEN-00324, displays a very active history through the Holocene era. Although shielded from the site area by an intervening high mountain ridge, tephra from the volcano doubtless contributed significantly to sediment accumulation at KEN-00324. The Crescent River drainage, north of the mountain ridge, has been extensively affected, with lahars (volcanically induced debris flows) flowing to the Cook Inlet shore several times approximately 3,500 years ago (Riehle et al. 1981). The age of the older of two lahars has been dated to about 3,600 years ago (Begét and Nye 1994). A series of later lahars (ca. 3,600 to 1,800 years ago) altered the upper Crescent River valley landscape as well. Begét and Nye (1994) conclude that tephra from Redoubt Volcano rained down south of the mountain for another 1,800 to 2,000 years after deposition of the 3,600-year-old lahars. The Crescent River lahars demon-

strate the high frequency of volcanic activity through the period of site occupation.

The presence of vegetated tidal flats surrounding Magnetic Island raises questions about the origin of the intertidal sediments and their relationship to possible sea level changes. The location of KEN-00324 suggests that the occupants of the site may have seen very different terrain than is present now. Detterman and Hartsock (1966) cite various lines of evidence for higher relative sea level in the recent past, but the age of changes remains unclear. They note a wave-cut notch 7.5 m above the present beach on Gull Island in the mouth of Chinikna Bay as a possible result of uplift. Other lines of evidence are the presence of raised beaches considerable distance from present beaches on the Iniskin Peninsula and at the mouth of the Johnson River. The oldest (highest) beach ridges at Johnson River are 6 to 9 m

above present sea level. Raised, vegetated beach ridges are situated parallel to and inland from the present beach south of the Johnson River. North of Redoubt Volcano, between Harriet Point and Drift River, Riehle and Emmel (1980) mapped raised shorelines just behind the present Cook Inlet beach. Tectonic or isostatic uplift are probable reasons for those features (cf. Combellick 1991). The cumulative evidence, while fragmentary, suggests a general uplift of land relative to sea level. The amount of uplift may be as much as 7.5 m, which would place KEN-00324 about 5 to 7 m above the adjusted sea level. Age of the relative sea-level high stand is unclear, as noted above, but the radiocarbon dates from KEN-00324 may be the best age estimate available.

Past vegetation, identified in fossil pollen profiles, has been documented only on a regional level. The nearest location where pollen samples have been collected is at Bear Lake near the base of Redoubt Volcano. The samples, collected by James Riehle and Thomas Ager during the early 1980s, remain only partially studied and are not yet published (Ager and Sims 1984).

Radiocarbon dating of the profile is problematic due to a lack of dated samples. Later columns extracted to study volcanic tephra were collected in different areas of the lake and do not extend to late Pleistocene sediments (T. Ager, pers. comm. 2012).

The nearest published pollen study locations are near Homer on the Kenai Peninsula, located 175 km southwest of Magnetic Island (Ager 2000). Regrowth of vegetation for that area began about 12,800 years ago, after the retreat of Pleistocene ice, with herbaceous tundra. Shrub tundra, featuring dwarf birch and willows, replaced the herbaceous tundra soon after initial vegetation growth. Alders (*Alnus*), willows (*Salix*) and deciduous trees (*Populus*) were dominant by 9,500 years ago, a vegetation community that lasted until the later Holocene. Ager (2000) dates the entry of spruce into the Homer area by 3,800–4,000 years ago. A coastal forest mix with Sitka spruce established in the area by 1,650 years ago, and that scenario might be extrapolated to the west shore of Cook Inlet near Tuxedni Bay. Ager has noted, however, that spruce of any variety did not enter the Bear Lake pollen profile until very late, within the past 1,500 years. It would appear that cottonwood, alder, and some birch have been the dominant vegetation around Tuxedni Bay until recently in geologic terms.

Significant terrestrial faunal resources in the Tuxedni Bay area are somewhat restricted in variety, reflecting the steep coastal terrain, limited hinterland, and generally short, small drainages. The dominant large land animal in the area is the brown bear (*Ursus arctos*). They are numerous and harvest salmon and clams with enthusiasm. A few moose (*Alces alces*) can be found in larger drainage valleys. The nearby Chigmit Mountains are natural habitat for mountain sheep (*Ovis dalli*). Historically, trapping in the general area targeted muskrat, beaver, fox, wolverine, and a few wolves (Stanek et al. 2006).

Several species of salmon spawn in area streams. Most notably, silver and chum salmon spawn in the smaller streams and are present in the streams closest to the Magnetic Island site. Sockeye and chum salmon are present in the Tuxedni River at the head of Tuxedni Bay (Johnson and Blanche 2012). A significant run of sockeye enters Crescent River, bound for Crescent Lake. Harbor seals pursue the salmon in Cook Inlet waters while they travel to their spawning destinations. Clams, primarily razor clams, are very abundant on sandy Cook Inlet beaches. The sandy beaches at Polly Creek are especially productive and support a commercial clam harvest in most years.

CULTURAL CONTEXT

The general culture history for Cook Inlet is based on research from archaeological sites on the Kenai Peninsula and upper Cook Inlet sites. Reger (1998) summarized findings on the northern Kenai Peninsula and Turnagain Arm. Workman (1998) discussed mainly Kachemak Bay research. Both articles identified significant gaps in the archaeological record, particularly during the early and middle Holocene periods. Recent field studies in the Susitna River valley have expanded knowledge about the earlier known cultures (cf. Wygal and Goebel 2012).

A major gap in the culture historical record in Cook Inlet exists during the period from 4000 to 3000 cal BP, at least among the radiocarbon-dated collections. Some have speculated that an early Kachemak Tradition occupation may have occurred during that time (cf. Clark 1997; Workman 1998), but such collections are rare and as yet undated. Other isolated and undated collections may also have been found but remain unrecognized.

Sites dated to the preceding millennium (ca. 5000–4000 BP) are present; for example a site on the upper Kenai River (SEW-00214) that yielded stone projectile points distinguished by notches chipped into the sides near the bases of the points. Two radiocarbon dates of 4640 ± 150 and 4795 ± 165 (4880–5640 and 5050–5900 cal BP)¹ immediately precede the layer containing the notched points (Holmes et al. 1985). The points compare in form and age with material attributed to the Northern Archaic culture in more interior regions of Alaska (cf. Ackerman 2004; Esdale 2008), but little else is known about a possible notched point stage in the general Cook Inlet region.

At essentially the same time as the notched points, sites that contain ground slate and chipped stone artifacts were occupied in Kachemak Bay and Turnagain Arm. Workman (1998) reported a Late Ocean Bay II occupation at the Sylva Site (SEL-00245), radiocarbon dated to about 4500 BP. Ground slate artifacts at the Sylva Site compare very closely with Ocean Bay II collections from Kodiak Island. A small collection from the Beluga Point site (ANC-00054) in component BPS1-2 was associated with two radiocarbon dates, 4155 ± 160 and 4080 ± 150 (4160–5270 and 4150–4960 cal BP) (Reger 1998; Reger and Boraas 1996). The collection contains artifacts very similar to Ocean Bay II (ground slate points) and Arctic Small Tool-related collections (chipped stone bipoint and

flake knife). Data about resource use and settlement patterns have not been recovered from these sites.

At a slightly later date, several sites closely comparable to Arctic Small Tool collections from southwest Alaska occur again in Kachemak Bay and Turnagain Arm. The basal component from the Chugachik Island site (SEL-00033) yielded finely chipped stone points and knives very like those of the Gravels Phase material from the base of the Alaska Peninsula. The basal component has been radiocarbon dated at 4005 ± 100 and 4220 ± 110 (4160–4820 and 4430–5040 cal BP) (Workman and Zollars 2002). The more distantly related and undated Beluga Point component BPN-2 contained comparable chipped stone knives (Reger 1981, 1998).

Following the 4000–3000 BP chronological gap, there are numerous sites in Cook Inlet attributed to the Kachemak Tradition (which also occurs on Kodiak Island and along the Shelikof Strait). Kachemak Tradition sites occur in Kachemak Bay and on the central Kenai Peninsula along the Kenai and Kasilof rivers (Reger 1998; Workman 1998). Recently, a Riverine Kachemak occupation has been investigated at the Hewitt Lake site (TYO-00085) near the Yentna River (Dixon 1996). In contrast to sparse archaeological evidence from earlier sites, excavations on Kachemak Tradition sites have yielded considerable data about habitations, settlement patterning and, especially for Kachemak Bay sites, extensive information about resource use. The Kachemak Bay sites have generally been deep middens and did not produce much evidence of houses, probably due to the practice of making trench excavations in the deep deposits. Riverine Kachemak sites do not often contain extensive faunal remains, but have yielded structural information. Houses of the period were semisubterranean, rectangular structures with one main room and a central fire hearth. A single, thin Kachemak Tradition site (ILI-00104) has been located on the west shore of Cook Inlet in Kamishak Bay, approximately 75 km south of Magnetic Island (Klein 1999).

The Kachemak Tradition is characterized by harvest of salmon along the major rivers and of marine resources, such as sea mammals, marine fish, and shellfish in the southern Cook Inlet sites. Kachemak Tradition sites are classified as Riverine Kachemak and Marine Kachemak based on the resources harvested and differences in artifacts used. Marine Kachemak collections feature more organic remains due to the presence of deep shell middens which aid organic preservation. Marine Kachemak sites also contain a much greater percentage of ground

slate tools, as opposed to the mostly chipped stone collections in Riverine Kachemak sites. Enough similarities of both ground stone and chipped stone artifact forms exist to consider the sites part of the larger Kachemak Tradition. Artifact similarities also extend to sites in the Kodiak Island and Shelikof Strait areas (Clark 1977). Some chipped stone artifacts in Riverine Kachemak sites appear to reflect influences from the Norton Culture of Southwest Alaska as much as from the more mainstream Kachemak Tradition. Kachemak Tradition sites in Cook Inlet date between 2,500 and about 1,500 years ago. Some Riverine Kachemak sites along the Kenai River appear to last until about 1,000 years ago (Reger and Boraas 1996). (See Fig. 1 for site locations.)

WEST SHORE, LOWER COOK INLET

Formulation of the culture history for Cook Inlet has depended almost exclusively on research on the Kenai Peninsula and in the Matanuska-Susitna area. Few sites have been recorded along the west shore of Cook Inlet south of the forelands where the northern part of Cook Inlet assumes a very different environment. The many recorded sites north of the forelands, with the exception of Beluga Point, Hewitt Lake, and the sites along the middle Susitna River, are virtually all Late Prehistoric Dena'ina sites. Most feature house pits and occasional cache pits.

Sites in the immediate area of Tuxedni Bay include an undated ephemeral site near the entrance to the bay (KEN-00221) (Klingler 1993) and most notably, the Tuxedni Bay Pictograph Site (KEN-00229). The pictograph site is located on the north shore of the Tuxedni River, approximately 24 km west of the entrance to the bay (de Laguna 1975; Griffin 1989). The pictographs in the rock shelter have been analyzed and the associated midden tested (Baird 2006). A radiocarbon date of 450 ± 50 (320–620 cal BP) from a sample taken from the base of the rock wall (J. Schaaf, pers. comm. 2012) places the deposits in the Late Prehistoric period.

SITE EXCAVATION AND RESULTS OF ANALYSIS

Surface features at the Magnetic Island site consist of four ovoid depressions in the ground, measuring approximately 2 to 4 m in diameter, set approximately 2 to 5 m apart (Features 1–4) (Fig. 4). Test pits (TPs, 50 x 50 cm) and excavation units (EUs, 1 x 1 m) placed in all depressions

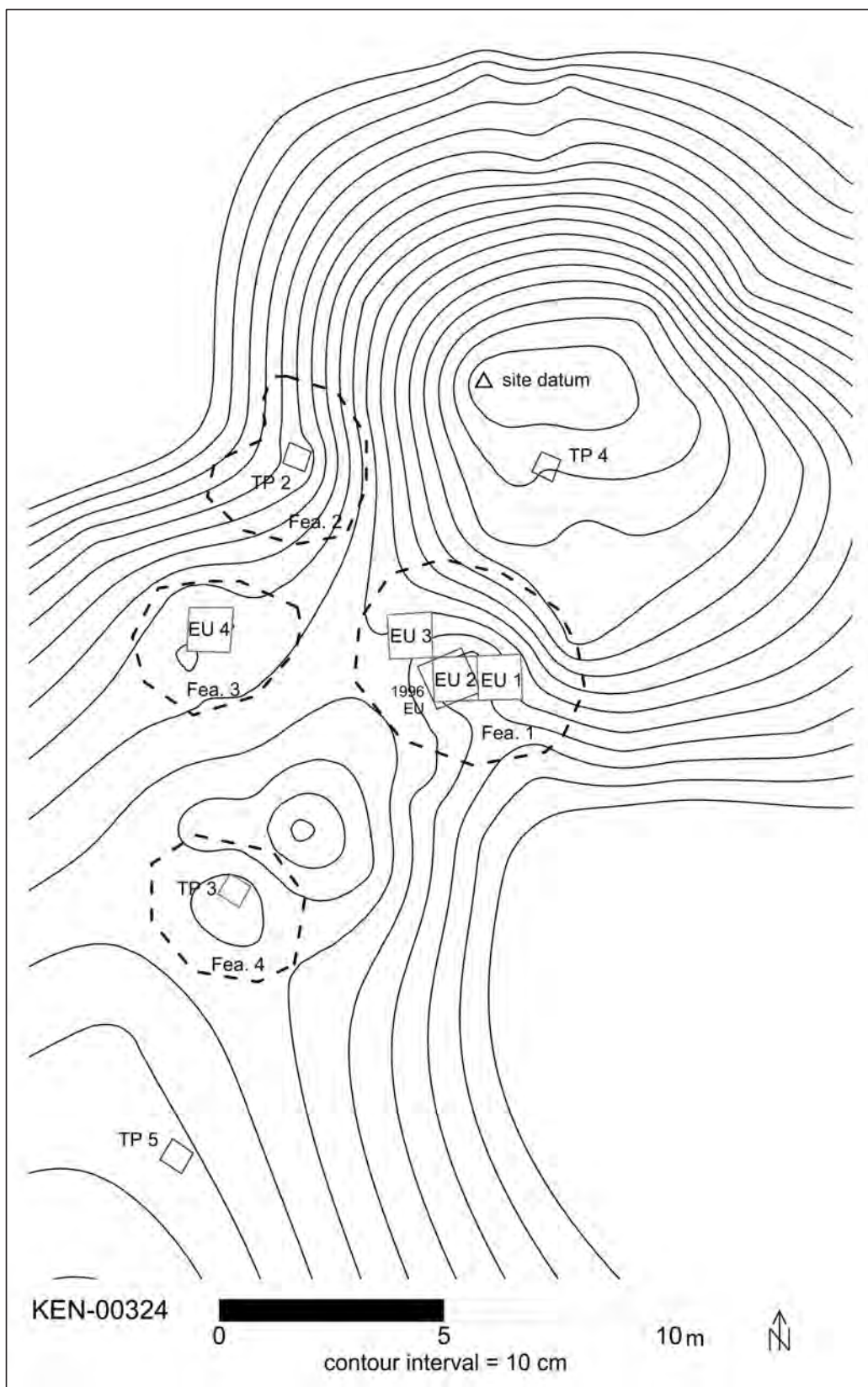


Figure 4. KEN-00324 site map.

confirmed the presence of cultural material in Features 1, 3, and 4. Feature 2 was found to be sterile and was likely formed by natural means. TP 1 was later expanded and became EU 4. The site area, estimated at 125 m², was determined by subsurface testing in all visible surface features as well as in outlying areas around the perimeter of the site. In total, four 50 cm² tests (all in 2012) and five 1 m² excavation units (four in 2012, and one in 1996) have been excavated at the site.

STRATIGRAPHY

Nearly all sediments present in the excavations at KEN-00324 are comprised of aeolian pyroclastic debris of various sizes and colors, due to the site's proximity to both the Redoubt and Iliamna volcanoes. As a result, the stratigraphic history of the site consists of long periods of slow sediment weathering and organic soil (andisol [soils formed in volcanic ash]²) development punctuated by rapid deposition of volcanic ash (tephra). These ash deposits range in size from small fine-grained falls to larger sandy ashes with cobble-sized pumice and scoria materials. The existence of multiple buried soil horizons between tephra deposits provides evidence for distinct chronological separation between volcanic events.

Cultural materials were encountered between depths of ca. 38 cm below the surface (cm BS) to 85 cm BS. The deepest and densest deposits were encountered in Features 1 and 3, while Feature 4 had thinner and less dense deposits (likely correlating to its location on the site's periphery). Cultural materials were immediately apparent in all positive units at the transition from the very compacted, dark reddish-brown tephra (C3 horizon) to the mottled tephra below (C4–6 horizons). Strata displayed a high degree of correlation across the site area (Fig. 5).

Visible cultural materials consisted of charcoal in varying concentrations, small amounts of fragmented bone, copious amounts of lithic debitage, and occasional lithic tools. Several dense concentrations of charcoal in EUs 1 and 2 were interpreted as likely hearth features (Figs. 5, 6). A box hearth, constructed of small thin slabs of stone, was located on and dug into sterile sediments at the bottom of EUs 1 and 2. Hearth slabs were from 10 to 15 cm in length and 2 to 3 cm thick. The rectangular hearth was shallowly recessed into the occupation surface by approximately 5 to 10 cm. An assemblage of small angular and sub-rounded cobbles, potentially cooking stones (cf. Dumond 1981,

2001) was located immediately adjacent to the box hearth. Cultural strata in EU 3 were somewhat thinner than in neighboring units 1 and 2; this unit was differentiated by large amounts of angular cobbles and even boulder-sized rocks (potentially structural material) (Fig. 7).

FEATURES

Feature 1, the largest depression at the site, yielded cultural deposits in which three separate hearths were superimposed (Fig. 6). The two upper hearths in Feature 1 consisted of some larger, sub-angular rocks, placed around shallow basins filled with fire ashes and burned debris. Crowell (1996) described several of the hearth rocks in the upper hearth as "rock slabs," some placed in vertical position. Flat stones almost covered the entire upper hearth. The hearth deposits of each of the higher hearths contained charcoal, fire-cracked rocks, and a few very poorly preserved fish bones. The fish bones were mostly ribs, with a few apparent jaw or skull bone fragments that were not recoverable. The size of the bones suggests the fish were salmon. Several pieces of bark, either birch or alder, were found under rocks in the middle hearth.

The lowest hearth, uncovered during 2012, was a box arrangement constructed of stone slabs and filled with charcoal and burned sediment. Immediately on top and to the side of the hearth feature was a large pile of burned, round stones. The stones likely were used in stone boiling and discarded beside the hearth. The box hearth and the overlying hearths appear to have been placed very close to the north wall of the depression. More extensive excavations would be required to ascertain whether the feature was a long-term, semisubterranean habitation structure or a temporary structure, such as a wind break or tent depression.

Box hearths of the form recorded at KEN-00324 are also found in Gravels Phase sites along the Brooks River on the Alaska Peninsula. Dumond (1981:125) illustrated a box hearth in house feature 1 at the BR-16 site that appears nearly identical, complete with associated burned boiling stones. Dumond (2001) more recently suggested that box "hearths" are more likely structures, perhaps holding skin or bark containers, associated with stone boiling. He concluded that as a diagnostic of the Gravels Phase, the presence of boiling stones associated with the box structures was more significant than the structure itself. The piece of bark found in the middle hearth in

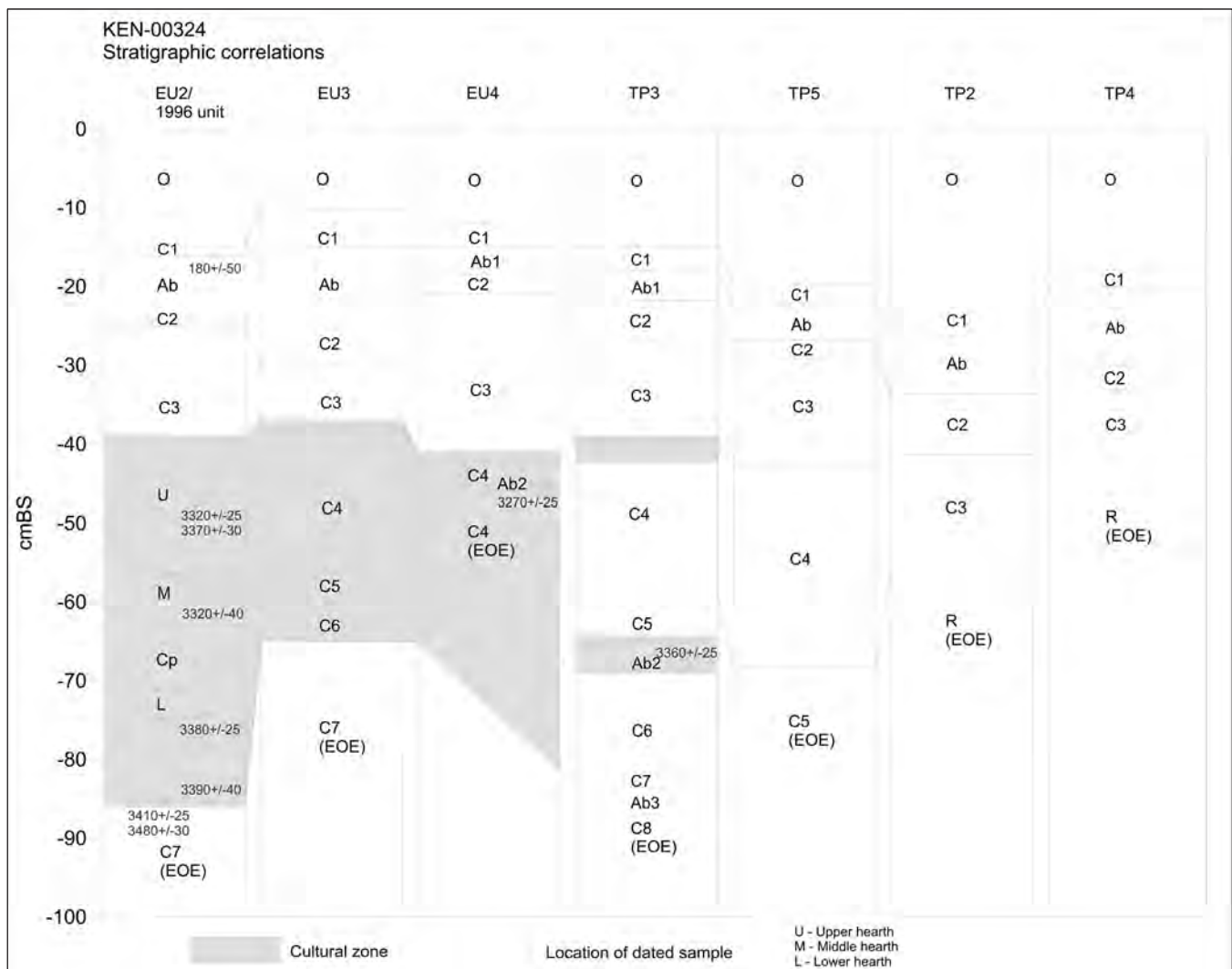


Figure 5. Stratigraphic correlations for all excavation units (EUs) and test pits (TPs). Key: Ab = organic-rich sandy silt tephra; Ab2 = organic-rich silt; Ab3 = organic-rich silt. C1 = silty tephra; C2 = silty sand tephra; C3 = silty tephra; C4 = silt, minor sandy tephra; C5 = silty tephra; C6 = silty sand tephra; C7 = silty tephra; C8 = sandy tephra. EOE = end of excavation; O = vegetation and decomposed organics.

Feature 1 at the Magnetic Island site may add support to Dumond's theory about the function of bark-lined box hearth structures. The Brooks River hearths were located within "relatively permanent settlements," serving as central bases for seasonal movement (Dumond 1981). Rectangular slab hearths were uncovered in late Ocean Bay II deposits at the Rice Ridge Site (KOD-00363) on Kodiak Island in a level associated with a radiocarbon date of 3860 ± 90 BP (4070–4450 cal BP) (Hausler 1991). Steffian and Saltonstall (2005) report a box hearth from an Early Kachemak house at the Zaimka Mound Site (KOD-00013) on Kodiak Island dated to 3500 ± 80 BP (3570–3980 cal BP).

DATING

Twelve radiocarbon ages have been produced on charcoal samples recovered from cultural and geologic contexts at the Magnetic Island site (five from 1996³ and seven from 2012) (Table 1). Of these, nine ages were accelerator mass spectrometry (AMS) assays, and three were conventional radiocarbon dates.

Results of dating analysis suggest a continuous occupation of the Magnetic Island site from ca. 4080 to ca. 3380 cal BP. However, several determinations appear to be stratigraphically inconsistent or are out of chronological sequence. The two dates with the largest standard deviations

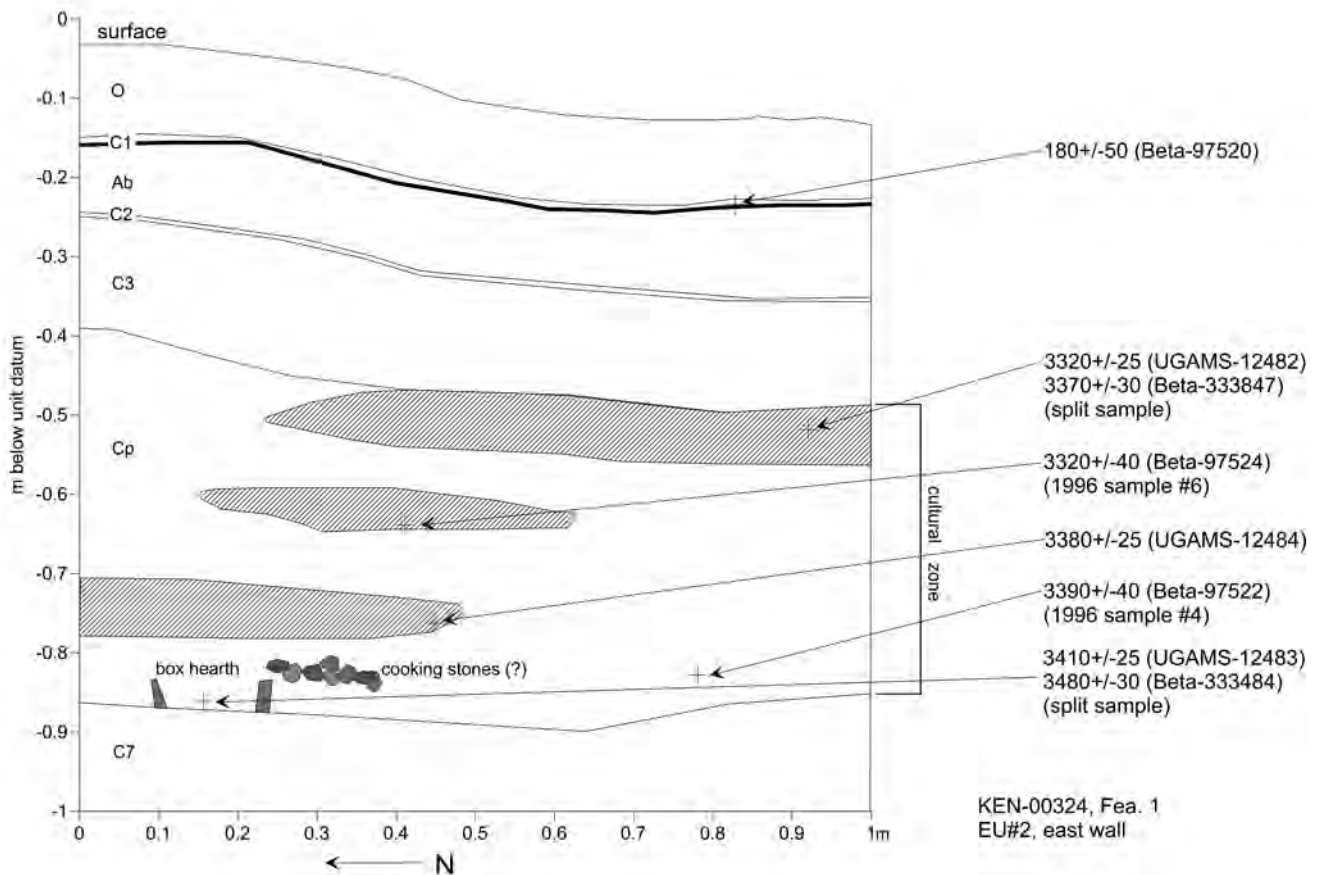


Figure 6. Location of dated samples on stratigraphic profile of EU 2.



Figure 7. Large, angular cobbles in EU 3, Feature 1.

(Beta-97521 and Beta-97523) both appear out of sequence when compared with the other determinations. For purposes of this investigation, therefore, a higher-resolution chronology was developed using only AMS results, with standard deviations of ± 40 years (or less). Using the nine results that meet these criteria, all determinations appear in chronological sequence, and eight of the nine overlap at two standard deviations (2σ) (Fig. 8). With these results, the Magnetic Island occupation is dated from ca. 3840 to 3440 cal BP, a period of around 400 years.

The oldest dates in the refined chronology come from the box hearth located in Feature 1. The two dates from a single split sample (3410 ± 25 BP and 3480 ± 30 BP) provide a range from 3840 to 3580 cal BP (Fig. 9). A stratigraphically equivalent sample from the 1996 excavation provided a date of 3390 ± 40 BP (3820–3490 cal BP), nearly identical to a sample from the charcoal concentration overlying the box hearth (3380 ± 25 BP, 3690–3570 cal BP). The youngest dates in the refined AMS sequence come from samples taken from the uppermost cultural levels: 3270 ± 25 BP from EU 4, and 3320 ± 25 BP from EU 1 (3570–3440 cal

Table 1. Radiocarbon dating results from KEN-00324 samples. Calibrated using CALIB 6.1 (Stuiver et al. 2005) and the INTCAL09 terrestrial calibration model (Reimer et al. 2009).

Lab Number	Provenience	Method	Conventional Age BP	cal BP (cal AD/BC) (2 σ)
Beta-97520	1996 unit, 18 cm BS	conventional	180 \pm 50	0–300 (cal AD 1650–1950)
Beta-97521	1996 unit, 30–40 cm BS	conventional	3440 \pm 140	3380–4080 (cal BC 2130–1440)
Beta-97522	1996 unit, 54 cm BS	AMS	3390 \pm 40	3490–3820 (cal BC 1870–1540)
Beta-97523	1996 unit, 40 cm BS	conventional	3500 \pm 90	3510–4070 (cal BC 2130–1560)
Beta-97524	1996 unit, 60 cm BS	AMS	3320 \pm 40	3450–3680 (cal BC 1730–1500)
Beta-333847	2012 EU 1, 53 cm BS	AMS	3370 \pm 30	3490–3690 (cal BC 1740–1540)
UGAMS-12482	2012 EU 1, 53 cm BS	AMS	3320 \pm 25	3470–3630 (cal BC 1680–1530)
Beta-333848	2012 EU 2, 86 cm BS	AMS	3480 \pm 30	3640–3840 (cal BC 1890–1700)
UGAMS-12483	2012 EU 2, 86 cm BS	AMS	3410 \pm 25	3580–3720 (cal BC 1770–1630)
UGAMS-12484	2012 EU 2, 79 cm BS	AMS	3380 \pm 25	3570–3690 (cal BC 1740–1620)
UGAMS-12485	2012 TP 3, 66 cm BS	AMS	3360 \pm 25	3490–3690 (cal BC 1740–1540)
UGAMS-12486	2012 EU 4, 45 cm BS	AMS	3270 \pm 25	3440–3570 (cal BC 1620–1490)

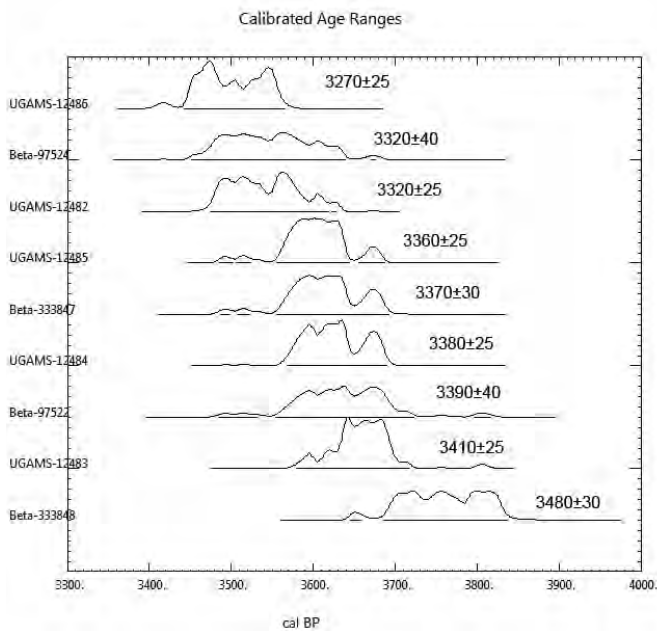


Figure 8. Calibration probability plots for radiocarbon dates with standard deviations of \pm 40 years or less.

BP and 3630–3470 cal BP; the latter was a split sample also dated to 3370 \pm 30 BP, 3690–3490 cal BP).

TEPHRA ANALYSIS AND CHRONOLOGY

Laboratory analysis of tephra samples collected at KEN-00324 is currently being conducted in cooperation with the U.S. Geological Survey, Alaska Volcano Observatory in Anchorage. Initial assessments based on microscope observation of samples are provided in Table 2.⁴ The ex-

tremely compact dark reddish-brown tephra (C3 horizon) that caps cultural strata across the site has been preliminarily sourced to the Redoubt Volcano.

Five radiocarbon dates were produced on charcoal samples from EU 2 and one from TP 3 that can be used to determine the relative ages of tephra fall events at the site (Table 3).

The box hearth in EU 2 at around 85 cm BS overlies the interface between a homogenized Cp horizon and C7 horizon, a dark yellowish-brown sandy tephra, providing two relative minimum dates of 3410 \pm 25 BP (3580–3720 cal BP, UGAMS-12483) and 3480 \pm 30 BP (3640–3840 cal BP, Beta-333848) on the C7 horizon tephra fall event.

Dates produced from the cultural zone hearth sequence in EU 2 overlap significantly, suggesting a relatively continuous occupation. Sediments from this stratum in EU 2 are described as mottled tephra (Cp horizon) and are thought to be an anthropogenic homogenization of the C4, C5, and C6 horizon tephra, which are separate and distinct at other locations throughout the site. Due to this homogenization, these three tephra horizons cannot be accurately separated in EU 2 by dates provided by any of the four hearths within the sequence. However, a culturally derived charcoal layer is present within TP 3 at 65–70 cm BS, underlying the well-sorted yellowish-brown silty C5 horizon tephra and overlying the well-sorted dark brown silty sand C6 horizon tephra with a date of 3360 \pm 25 BP (3490–3690 cal BP, UGAMS-12485) fitting within EU 2's tightly dated cultural zone spread. Separation and

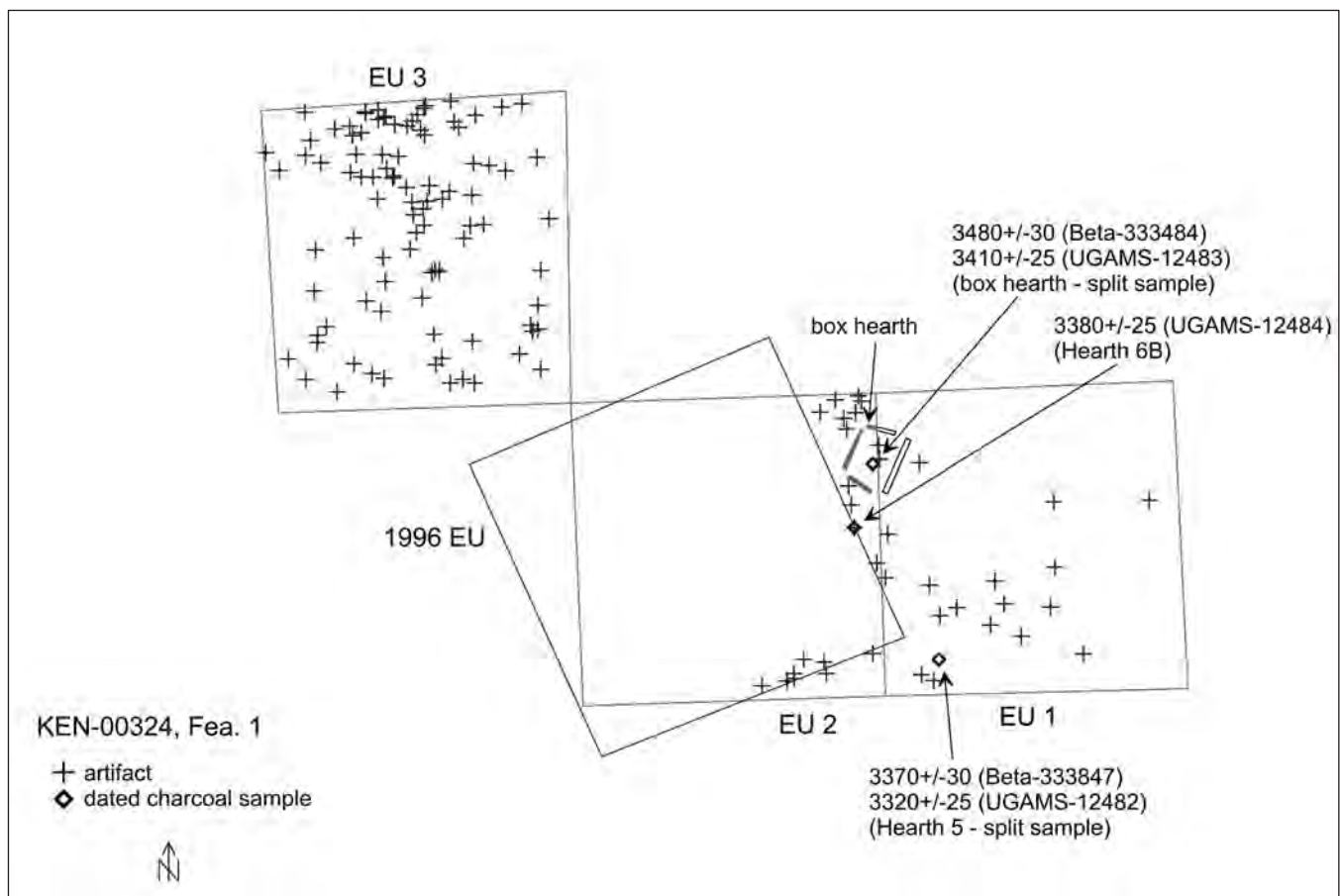


Figure 9. Location of dated samples taken in 2012 from Feature 1.

Table 2. Preliminary source analysis of KEN-00324 tephra samples.

Lab No.	Provenience	Sample description	Possible Source Volcano
AT-2774	1996 unit, L4	Cream pumices	Redoubt
AT-2775	TP3, 34 cm BS, C3 hoz	Cream pumices	Redoubt
AT-2776	EU3, 30–35 cm BS, C3 hoz	Cream pumices	Redoubt
AT-2777	EU3, 65–70 cm BS, C5/6/7 hoz	Dark gray dull pumices with abundant coarse plutonic lithics	Iliamna?
AT-2778	EU3, 60 cm BS, C5/6 hoz	Cream pumices, large lithics, dense gray lithic variety	Redoubt
AT-2779	EU3, 45–47 cm BS, C4 hoz	Cream pumices, abundant biotite, some lithics	Hayes?
AT-2780	EU3, 55–57 cm BS, C4 hoz	Cream pumices, abundant clumps of organics, charcoal (?)	Redoubt?
AT-2781	EU3, 8–10 cm BS, O/C1 hoz	Dirty white pumices, abundant clumps of organics, charcoal (?); resembles AT-2784, 2786, 2787	?
AT-2782	TP3, 12 cm BS, O/C1 hoz	Fine-grained white pumice with dense gray lithics; same as AT-2788	Augustine?
AT-2783	TP3, 40 cm BS, C3/4 hoz	Cream pumices, 1.3 cm granite clasts; few large pumices 0.9 and 0.8 cm	Local source
AT-2784	TP3, 24 cm BS, C2 hoz	Resembles AT-2781, 2786, 2787	?
AT-2785	1996 unit, L8	Bright white pumices	Augustine?
AT-2786	1996 unit, L3A	Resembles AT-2781, 2784, 2787	?
AT-2787	1996 unit, L3	Resembles AT-2781, 2784, 2786	?
AT-2788	1996 unit, L2	Fine-grained white pumice with dense gray lithics; same as AT-2782	Augustine?

Table 3. Radiocarbon results related to tephra dating from KEN-00324 samples.

Lab Number	Provenience	$^{13}\text{C}/^{12}\text{C}$ (per mil)	Conventional Age BP	cal BP (cal AD/BC) (2σ)
Beta-333847	2012 EU 1, 53 cm BS	-25.3	3370 \pm 30	3490–3690 (1740–1540 cal BC)
UGAMS-12482	2012 EU 1, 53 cm BS	-25.7	3320 \pm 25	3470–3630 (1680–1530 cal BC)
Beta-333848	2012 EU 2, 86 cm BS	-23.5	3480 \pm 30	3640–3840 (1890–1700 cal BC)
UGAMS-12483	2012 EU 2, 86 cm BS	-25.0	3410 \pm 25	3580–3720 (1770–1630 cal BC)
UGAMS-12485	2012 TP 3, 66 cm BS	-23.9	3360 \pm 25	3490–3690 (1740–1540 cal BC)

lack of homogenization of sediments may occur in TP 3 because of its location at the periphery of the site locus where cultural lenses are thinner, with less anthropogenic sediment alteration.

The EU 2 C3 horizon is a well-sorted dark brown silty sand tephra present at approximately 25–45 cm BS, with a thickness of 20 cm. Two dates were produced for the upper hearth feature present within the C4 horizon, overlying the C3 horizon, with dates of 3320 \pm 25 BP (3470–3630 cal BP, UGAMS-12482) and 3370 \pm 30 BP (3490–3690 cal BP, Beta-333847). These dates provide a maximum age for the C3 horizon tephra event. The C3 tephra has been provisionally sourced to the Redoubt Volcano.

Horizon C1 in EU 2 is a well-sorted gray silty tephra present between 15–20 cm BS, with a thickness of 3–5 cm, provisionally sourced to the Augustine Volcano. Just underlying this layer is a 15-cm-thick buried, very dark brown, organic-rich soil developed in a volcanic ash (andisol; Ab horizon). A charcoal sample was collected from the interface between these two strata, which provides an ultimate maximum date of 180 \pm 50 BP (0–300

cal BP, Beta-97520, from 1996) on the overlying C1 horizon tephra event. This same andisol provides a relative minimum date on the underlying C2 horizon tephra below. C2 is a 2–3 cm thick dark brown silty tephra.

ARTIFACT ANALYSIS⁵

Lithic Materials and Artifacts

Lithic material types found within the KEN-00324 site area include basalt, chalcedony, chert, jasper, magnetite, quartz, an unidentified white fine-grained metamorphic material, and variously colored fine-grained granitic materials (Table 4). Granitic materials dominate the lithic assemblage.

Mapped surficial geology within 20 km of Magnetic Island displays an abundance of both igneous and sedimentary raw materials suitable for knapping stone tools. Some outcrops are located on Magnetic Island itself; however, no microcrystalline quartz-structured sedimentary rocks (chert or chalcedony) are mentioned in the geologic literature referring to the area (Wilson et al. 2009). Chalcedony and chert make up 0.63% and 5.26%

Table 4. Raw material types from the KEN-00324 lithic assemblage.

Rock Type	Description
basalt	Black, brown, or green in color; fine- to medium-grained texture; low luster; mostly homogenous in mineral matrix with minor quartz crystal growth.
chert	Colors ranging from white to light greenish-gray to dark bluish-gray; medium luster; fine-grained texture; some abrasion on dorsal surfaces caused by water wear indicative of stream or river pebbles and cobbles.
granitic material	Mostly pale brown and light greenish-gray, some white and black; low luster; macroscopically visible medium- to coarse-grained crystal texture; some alteration in texture and patina of dorsal surfaces from chemical weathering.
quartz	Clear to opaque white; high luster; high incidence of visible inclusions; some abrasion on dorsal surfaces caused by water wear indicative of stream or river pebbles and cobbles.
unknown	White; low to medium luster; medium-grained texture.
chalcedony	White and black, sometimes with alternating yellowish and clear laminations; high luster; fine-grained texture.
magnetite	Gray to black; medium to high luster; medium-grained texture; reacts with hand compass; some abrasion on dorsal surfaces caused by water wear indicative of stream or river pebbles and cobbles.
jasper	Red to dusky red; medium to high luster; fine-grained; mostly homogeneous with some darker and clear laminations and inclusions.

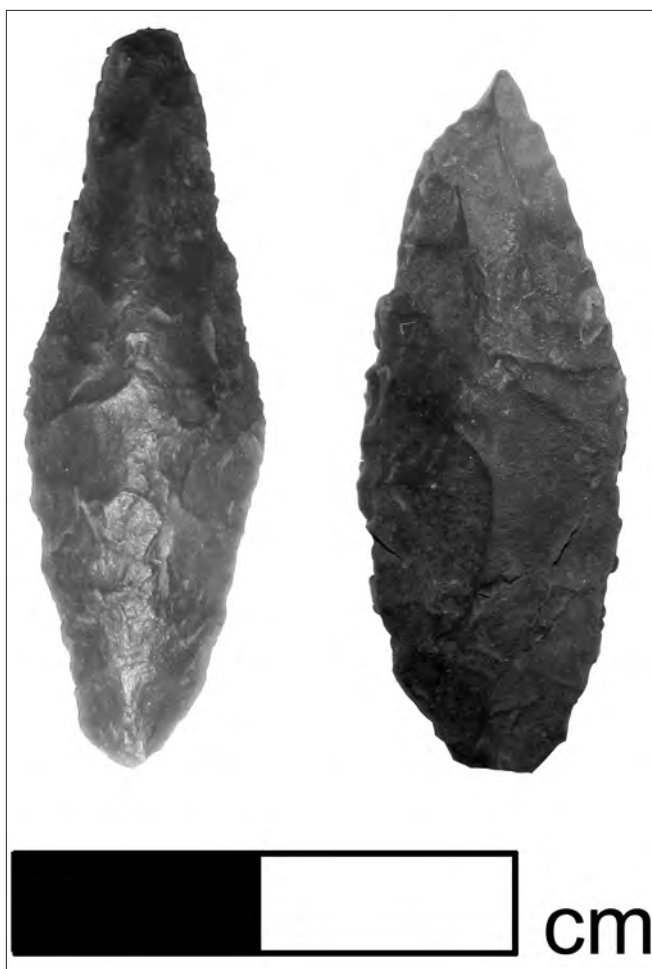


Figure 10. Bipoints (cat. nos. LACL 093-8107 and 417-7970).

of the total lithic assemblage respectively. Granitic materials are by far the most abundant material among all features, with an overall concentration of 74% by tool and debitage count and 83% of total weight. Several strategies were being used to reduce lithic materials, including hard hammer, soft hammer, and pressure flaking, indicating an apparent focus on bifacial reduction techniques (Andrefsky 1998).

The abundance of granitic materials is likely due to the close proximity of corresponding outcrops in the area and prehistoric occupants' ability to obtain and move larger package sizes of this locally abundant material back to their camp sites and living areas. Furthermore, these granitic materials consist of larger crystals (olivine, hornfels, and quartz) and do not flake as cleanly as microcrystalline materials such as cherts and chalcedonies. The granitic materials likely would not have been preferred over more microcrystalline types of raw materials in areas where these more knappable materials are abundant.

A total of 2,243 pieces of debitage were recovered from KEN-00324. The majority of debitage ranges in size from 10 to 30 mm with an average of 16 mm. A higher degree of incomplete flake fragments (proximal, medial, and distal) are present than complete flakes. Despite significant flake fragmentation, no particular flake portion dominates the assemblage. This suggests that debitage breakage may be a result of post-depositional processes such as bioturbation, cryoturbation, or human trampling during occupation.

The artifacts recovered at KEN-00324 are predominantly flaked lithic pieces and flaking debris. Several grinding slab fragments were recovered and probably were used for grinding red ochre, pieces of which were also found in the site. In fact, *lack* of slate or extensive stone grinding is considered a distinguishing trait of the total collection from KEN-00324, especially significant for the period to which the collection has been dated.

Chipped Bipoints

Two bifacially flaked points were recovered from the site, one (LACL 093-8107) found in Feature 1 during 1996 and the second (LACL 417-7970) recovered from Feature 3 in 2012 (Fig. 10). The first bipoint is small, 2.63 cm in length, made from a flake blank. The ventral surface shows slightly invasive irregular and collateral fine flaking. The original ventral surface of the flake blank is still evident. The second bipoint is a complete, finely finished piece, 2.96 cm in length. It is collaterally flaked with fine edge retouch and is widest at its longitudinal midsection. The cross-section is lenticular. One tip of the point tapers more than the opposite, more convex tip. The tapered tip has slight grinding along the lateral margins and hinge-fractured flake removals at the tip's edge, which may indicate that this end was inset into a composite point. The more roughly flaked piece is a form that occurs in many cultural phases in southern Alaska over a wide span of time. The more finely finished bipoint very closely resembles small bipoints or endblades that occur in Arctic Small Tool tradition (ASTt) collections and early Norton Tradition collections.

Specifically, the finished stone endblade or bipoint from KEN-00324 very closely resembles bipoints described by Dumond (1981:203) as Bi-point I (Class 29). The bipoints are found in a Brooks River Gravels context of the Arctic Small Tool tradition. A nearly identical bipoint was also recovered from an apparent house at ILI-00002, the Igiugig Airport site (Holmes and

McMahan 1996). A radiocarbon date of 3350 ± 60 BP (3450–3720 cal BP) was obtained from the hearth in the shallow house feature. Farther out the Alaska Peninsula, in the Ugashik Hilltop Phase, somewhat similar bipoints occur but are slightly different in the treatment of the point base (Henn 1978). Henn considered Hilltop Phase material to be ASTt-related but also noted the small points (Types 10, 12) were very like later Norton points (Henn 1978:81).

Small, well-chipped bipoints occur in the Pedro Bay site (ILI-00001) in what has been called the second or later component (Reger and Townsend 1982, 2004). That component is poorly dated and compares to both ASTt and Norton collections in the Bristol Bay area. Two sites on Telequana Lake (XLC-00133 and XLC-00033) also produced similar artifacts. A small contracting stem projectile point and very small sideblade from XLC-00033 both suggest an affiliation with either the ASTt or Norton tradition (Tennessen 2006). A radiocarbon date of 3660 ± 40 BP (3870–4090 cal BP) was obtained from the site, although the excavator cautioned that the charcoal sample could not be definitively associated with the artifacts (Tennessen, pers. comm. 2012).

Similar small bipoints also occur on Kodiak Island in contexts considered to be Ocean Bay II (Hausler 1991). A finely chipped chalcedony bipoint from the Rice Ridge site has been cited as an example of Arctic Small Tool implements on Kodiak Island (Hausler 1991; Steffian and Saltonstall 2005). Hausler noted the point and other bipoints were associated with a radiocarbon date of 3850 ± 80 BP (4070–4440 cal BP).

The basal component at the Chugachik Island site, SEL-00033, contains small, finely chipped bipoints but radiocarbon dating for the collection places it in excess of 4000 ^{14}C years BP (Workman and Zollars 2002). That component contains many other artifacts diagnostic of an Arctic Small Tool tradition occupation not present in the KEN-00324 collection, and it predates the KEN-00324 occupation by 400 to 500 years.

Chipped Adzes

Examples of thick, chipped bifaces, thought to be broken adzes, were found in Features 1 and 3 (Fig. 11). All were chipped from light greenish-gray igneous material. The adzes appear to fit closely with Dumond's description of Type IV adzes of the Gravels Phase at Brooks River. Adze IV forms also occur in the Norton phases following the

Gravels Phase (Dumond 1981). One fragment exhibits a ground and polished surface, similar to those illustrated by Dumond (1981). Chipped adze bits of similar form are *not* described from Ocean Bay II or Early Kachemak on Kodiak Island.

Grinding Stone or Whetstone

A possible whetstone fragment from the Magnetic Island site has very limited diagnostic value, as whetstones occur in many collections of widely varied ages in the region. The noteworthy trait of the Magnetic Island specimen is the red ochre stain on the grinding surface. The fragment from Feature 1 was associated with the middle hearth, which was found at the same level as red ochre stains and fragments (Fig. 6).

Similar whetstones, likely associated with red ochre, occur in Gravels and later Weir phases at Brooks River (Dumond 1981). Dumond classified these as Whetstone II, variety 1. Whetstones also occur in the lower component of the Pedro Bay site, but would be several hundred years older than the Magnetic Island specimen (Reger and Townsend 2004). Red ochre also occurs in the lower component deposits at the Pedro Bay site.

WOOD, BARK, AND BONE

Wood

Speciation analysis was undertaken on 15 samples of woody fragments, twigs, and charcoal obtained from EU 2 and TP 3. Three samples could not be identified. Of the remainder, 11 were identified as *Populus* (cf. *deltoidea trichocarpa*), or black cottonwood, with one possible *Populus tremuloides* (quaking aspen).⁶

Bark

Five pieces of tree bark were recovered from the site during the 1996 excavation. Based on visual inspection, all bark fragments are provisionally identified as either birch or alder. All pieces were collected from beneath rocks in the Feature 1 middle hearth.

Bone

Bone residues were observed in the upper hearths of Feature 1 during excavation; possible fish ribs and a few apparent fish jaw or skull bone fragments were not recoverable. Bulk samples taken from charcoal concentrations



Figure 11. Bifaces (cat. nos. LACL 417-7997, -7956, -7876, and -7954).

were wet-sieved during laboratory analysis, resulting in the recovery of a small amount of calcined bone fragments. These fragments were also determined to be fish, although speciation was not possible.⁷

DISCUSSION

Data presented above suggest the clear affinity of material from the Magnetic Island site with that from other sites in the region attributed to the Arctic Small Tool tradition. The presence of ASTt-related material has been documented at numerous sites in southcentral and southwestern Alaska, although few have been securely dated (cf. Slaughter 2005). Prior to the Magnetic Island investigations, the Chugachik Island site in Kachemak Bay was the only securely dated ASTt site on Cook Inlet, at 4150–5040 cal BP somewhat older than similar sites from farther south and west. Dates from ASTt sites on the northern Alaska Peninsula and the lakes of the southern Alaska Range are summarized in Fig. 12. These data suggest a fairly consistent time period for

ASTt occupation in the region of roughly 1,700 years, from 3,300 to 5,000 years ago.

Based on the dates from Chugachik Island, Workman and Zollars (2002) suggest a dispersal of the Arctic Small Tool tradition southward from Bering Strait by at least ca. 4,000 radiocarbon years ago, arriving in the Kenai Peninsula prior to the Alaska Peninsula. By around 3,800 radiocarbon years ago, ASTt people were present on the Bering Sea side of the Alaska Peninsula, quickly moving inland along the region's major rivers (Dumond 2005).

Many questions remain, particularly the origin of the ASTt on Cook Inlet and the relationship between Magnetic Island and other sites in the region. Given the disparity in dates, it seems more likely that the Magnetic Island site occupation is more closely related to those on the Alaska Peninsula than to that at Kachemak Bay. In one scenario, a two-pronged movement south from Bering Strait might be envisaged, with an earlier stream of ASTt crossing the Alaska Range, perhaps leaving traces in deep interior contexts such as

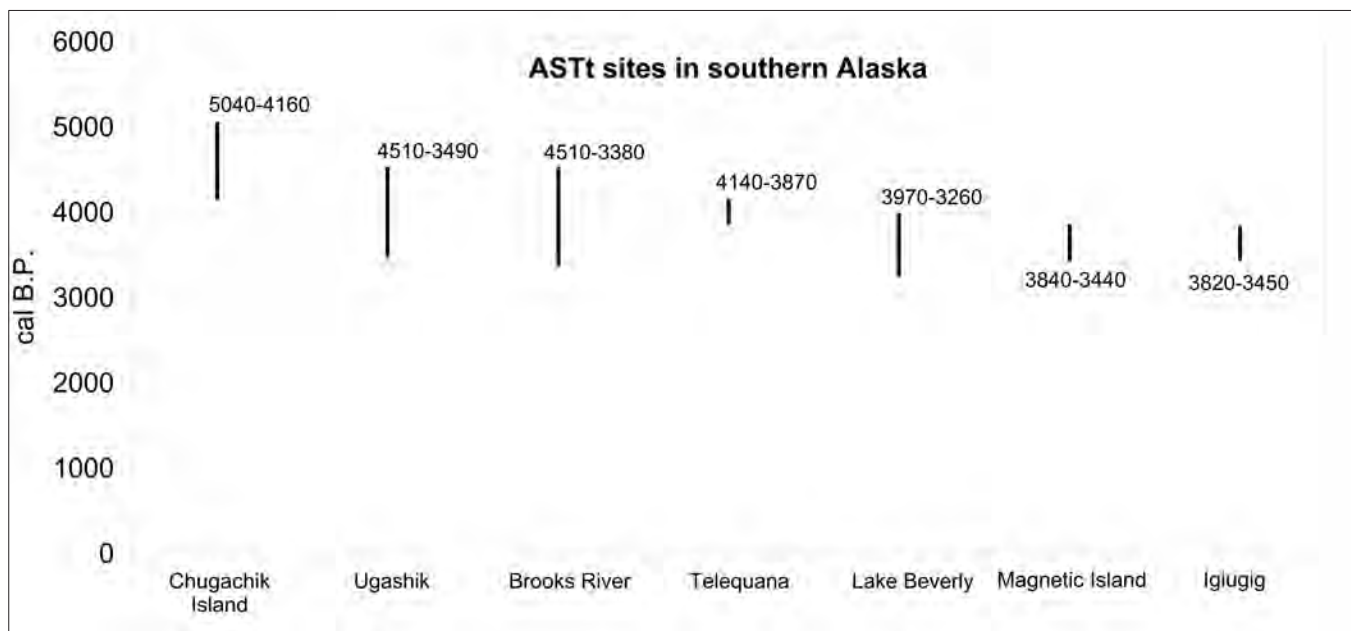


Figure 12. Calibrated date ranges for ASTt sites in southern Alaska.

Tyone Lake (cf. Irving 1957), and eventually ending on the Kenai Peninsula. The second movement would have passed south through the Yukon–Kuskokwim Delta to Bristol Bay and the Alaska Peninsula, although as noted by Workman and Zollars (2002), Shaw (1982), and others, the distributional gap clearly requires further survey work in the delta region. However, a more likely scenario involves initial southerly migration followed by multiple movements north and east from the Alaska Peninsula, resulting in the various sites on Cook Inlet. In any case, occupations to the west of Cook Inlet still provide a more enduring record, as large and stable salmon runs along drainages such as the Brooks River enticed the ASTt people “to settle in a more sedentary fashion than they had been accustomed to” (Dumond 2005:75). A similar resource base must be considered for Magnetic Island, where the only faunal remains (poorly preserved) appear to be fish bones.

Investigations of ASTt occupations in the Brooks River area revealed that a hiatus of as much as 500 years can be seen in the cultural chronology of that area. Dumond (2011) believes the Brooks River and nearby areas were abandoned during the time between the ASTt and Norton occupations. Impacts to caribou herds and anadromous fish runs on the Alaska Peninsula by a number of large volcanic eruptions during the fourth millennium BP (such as Aniakchak, Veniaminof, and others, cf. Miller and Smith 1987; Begét et al. 1992) certainly affected human populations in the region (Dumond

2005; Vanderhoek 2009). Similarly, the Redoubt tephra capping cultural levels at KEN-00324 suggests that volcanism was a major factor in the cessation of human occupation at the Magnetic Island site.

Research by Vanderhoek (2009) and others has shown that Alaska felsic tephra may lay exposed for a relatively long period of time following a depositional event before a soil begins to develop (in some cases taking more than 100 years to develop weak soil horizonation). Revegetation can be slow after volcanic ash deposition, due to factors including soil moisture, temperature, and texture of the tephra. Workman (1979) noted that even thin tephra falls can have severe short-term impacts, such as ejection of poisonous gases and breakage and stunting of plants, damaging the ecosystem and causing lung, eye, and skin problems in animals and people. Under such circumstances it is highly unlikely that people would have remained in the area during thick ash-fall events. Occupants may have chosen to abandon the site, potentially returning after the event, resulting in a temporary hiatus in occupation. This may account for the thickness and disturbance of deposited tephra layers within and between features at the site, despite the relatively short passage of time and nearly continuous presence of lithic artifacts.

The Magnetic Island site collection provides firm evidence that bearers of the ASTt migrated into Cook Inlet during the latter half of the second millennium BC. The collection demonstrates that ASTt influences appearing in Kachemak Bay by 4100 ¹⁴C years BP lasted, at least

intermittently, in the region until 3400 ^{14}C years ago. The collection also provides a link in time to probable continuing influences in the succeeding cultures of upper and middle Cook Inlet. The period around 3,500 years ago witnessed heightened volcanic activity throughout the Chigmit Mountains and west along the Alaska Peninsula. The burial of the Magnetic Island site occupation may represent an example of what terminated the spread of Arctic Small Tool tradition people into the Cook Inlet basin. Elements of ASTt technology appear to persist among later Cook Inlet cultures (Norton and perhaps Riverine Kachemak), but the complete cultural complex did not.

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ENDNOTES

1. All radiocarbon dates are presented here as age ranges calibrated to two standard deviations (2s). Age determinations were calibrated using CALIB 6.1 software (Stuiver et al. 2005) and the INTCAL09 terrestrial calibration model (Reimer et al. 2009).
2. Sediment and soil descriptions follow national conventions established by the USDA (1993), and slightly modified for soil stratigraphy by Holliday (2004).
3. We thank Aron Crowell for providing radiocarbon dating information from the 1996 testing.

4. Preliminary examinations of tephra samples were undertaken by Kristi Wallace of the Alaska Volcano Observatory.
5. Artifactual materials will be curated at National Park Service administrative headquarters, Anchorage.
6. Wood speciation was undertaken by Owen Davis, University of Arizona Palynology Laboratory.
7. Faunal analysis was performed by Carol Gelvin-Reymiller, NLUR.

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ALEUT BURIAL MOUNDS: *ULAAKAN* AND *UMQAN*

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ABSTRACT

Unangan of the Aleutian Islands archipelago used a variety of methods to bury their dead, including placement of the deceased, often mummified and accompanied by spectacular grave furniture, in bed-rock grottos and fissures. However, two other methods were far more common and widespread. *Ulaakan* were specially built above-ground boxes or conical huts in which prepared bodies were interred. The more enigmatic *umqan* were substantial earthen mounds, often triangular in plan and containing one or more pit burials. *Ulaakan* and *umqan* typically were constructed within the limits or in close proximity to settlement sites. This paper gives an overview of historical accounts and previous archaeological investigations of these two burial types and describes survey data generated since the 1980s. Feature shape and size variability were analyzed using simple statistics, but no clear patterns were identified.

INTRODUCTION

For the last few millennia, Unangan practiced a variety of burial customs presumably related to social status disparities among deceased individuals or their lineages, the circumstances surrounding deaths, wishes of the deceased or their living relatives, labor requirements for grave construction, little-known cultural and religious beliefs, and other unknown factors (Aigner and Veltre 1976:124–126; Corbett et al. 2001:257–258; Frohlich and Laughlin 2002:90–97; Hrdlička 1945:178–195; Lantis 1970:215). Bodies were eviscerated, filled with grass, and often intentionally mummified. They were typically bound in flexed positions (Jochelson 1925:42; Laughlin 1980:89, 96–103, 1983; Veniaminov 1984:196). Several disposition methods were identified ethnographically or archaeologically, including: placement of the deceased in caves and rock fissures, typically with elaborate grave furniture,¹ at localities remote from habitation sites (Bank et al. 1950:160–173; Dall 1878; Hrdlička 1945:412–420; Jochelson 1925:45–46; Pinart 1873a, 1873b, 1875a, 1875b); in abandoned

pits or dwellings within a village (Frohlich and Laughlin 2002:96; Hrdlička 1941, 1945:411, 485; Jochelson 1925:49; Knecht and Davis 2007:69; Laughlin 1980:99); in pits or walled-up side rooms within contemporaneously occupied houses (Dall 1878:7; Jochelson 1925:49–52; McCartney and Veltre 2002:258); rare cremation, possibly of sacrificed slaves (Bank et al. 1950:171; Hrdlička 1945:267, 398–400); and burial in specially built structures adjacent to a settlement (Aigner and Veltre 1976; Coxe 1966:154–155, 173; Frohlich and Laughlin 2002:97–108; Jochelson 1925:49; Laughlin 1980:99; Veniaminov 1984:196; Weyer 1929).

This paper focuses on surface expressions and distribution of burial structures known as *ulaakan*² and large earthen monuments called *umqan*, as known from ethnography and archaeological survey. Much of the inventory data presented here derives from Aleutian fieldwork by Bureau of Indian Affairs (BIA) archaeologists in 1991. Beginning in 1983 and continuing through the early 2000s, the BIA Alaska Native Claims Settlement

Act (ANCSA) Office conducted field surveys in the Aleutian Islands to identify Native historical places and cemetery sites claimed by the Aleut Corporation pursuant to Section 14(h)(1) of ANCSA (1971).³ For the Aleut region, Section 14(h)(1) claims targeted sites identified by Unangan elders or by previous archaeological investigators (i.e., Ted Bank, William Dall, Bruno Frohlich, Aleš Hrdlička, Waldemar Jochelson, Allen McCartney, Christy Turner, Doug Veltre). Qualifying sites were conveyed to the Aleut Corporation as fee-simple properties. Since Unangan settlement sites typically presented extensive surface remains that satisfied ANCSA eligibility criteria, BIA survey protocol emphasized mapping of features and exposed cultural deposits sufficient to delineate bounding site polygons. As a consequence of this approach, BIA archaeologists obtained only limited subsurface and chronometric data for most sites, whereas their work generated robust inventories of surface features and horizontal site structure. During the 1991 field season, BIA committed substantial resources and personnel to its most ambitious and wide-ranging Aleutian Section 14(h)(1) campaign. Survey began in the Delarof Islands, a group of small islands at the western end of the larger Andreanof Island group, and progressed eastward through the central and eastern Aleutian archipelago to the lower Alaska Peninsula (Fig. 1). The surveys relocated and recorded 158 ANCSA sites. Many others were observed and map-plotted. On fifteen of the twenty-seven islands visited, attribute data were obtained at forty-five settlement sites for about 200 features identified as *umqan* or *ulaakan*-like burial mounds. Unlike previous non-ANCSA investigations, BIA policy and the nascent NAGPRA (1990) legislation precluded testing at known or suspected Native burial features.

After reviewing literature pertaining to Unangan surface burials, we discuss the simple statistical and spatial analyses we conducted on the 1991 BIA data, augmented to the extent possible by findings from other surveys. Our goal is to describe some aspects of the variability in burial mound size and shape. We conclude with discussion of the findings as they relate to Unangan life in protohistoric and early historic times.

ALEUT BURIAL STRUCTURES

ULAAKAN

European visitors to the Aleutian Islands noted Unangan burial practices almost from their first landfalls. Most ob-

servers reported differential treatment of the dead based on rank or status. Ivan Solov'ev and A. Ocheredin, visiting the Fox Islands shortly after the 1763–1764 Aleut uprising, described inhumations “covered over with earth” for low-status individuals, in contrast to the wealthy, whose flexed bodies were placed with their belongings in wooden coffins suspended above ground on a driftwood frame and exposed to the elements (Coxe 1966:154–155, 173). Martin Sauer (1972:161), Gavriil Sarychev (1806:77), and Carl Merck (1980:177), members of the 1790–1792 Billings expedition, gave congruent accounts of higher status burials in hewn wood boxes set on pedestals and covered with sod (Fig. 2b). For example, Merck (1980:177) wrote:

The coffins (*kumunak*) [sing. *qumnaġ*] are placed around their huts. It is a long, rectangular box made of thick boards. They are two ells long [ca. 2.3 m], and one-and-a-half ell [ca. 1.7 m] wide, as well as high. And it rests on a pedestal which is 1 ½ foot high and carved out on top. The narrower sides of the box are joined into the longer sides. The covering on top consists first of all of pieces of wood, cut to equal length and placed side by side across. Then there are some boards placed lengthwise, together with a straw hill of turf.

Whale bone or hewn wood coffins topped with sod evidently were used both at open-air burial grounds and within burial caves (Bergsland 1994:336). Waldemar Jochelson's (1925:131) early twentieth-century Unangan informants indicated that *qumnaġ* was a generic term for any burial place.

In the 1820s and 1830s, the priest Ivan Veniaminov obtained detailed descriptions of burial practices in the Unalaska district, including body treatment, feasting, mourning, and associated customs. Like other observers, he distinguished between well-made coffins for the wealthy and simple burial huts or *ulaakan* (derived from *ulaġ*, “house or dwelling” [Bergsland 1994:433]) for those of lower status (Fig. 2a). According to Veniaminov (1984:196):

[following embalming] the body was dressed in the deceased's best and favorite clothes and, swaddled like a baby, put into a *zybka* ([Russ.] a frame over which a skin was stretched). It was then suspended in the very place where the deceased had died and kept there for another 15 days.... On the 16th day after the embalming, the body was carried to the cemetery; if it were that of a *toen* ([Russ.] *toyón*, *tuyuunaġ*) with an escort of all the residents of the village. The body was suspended in the same cradle within a tomb ([Russ.] *grob* or

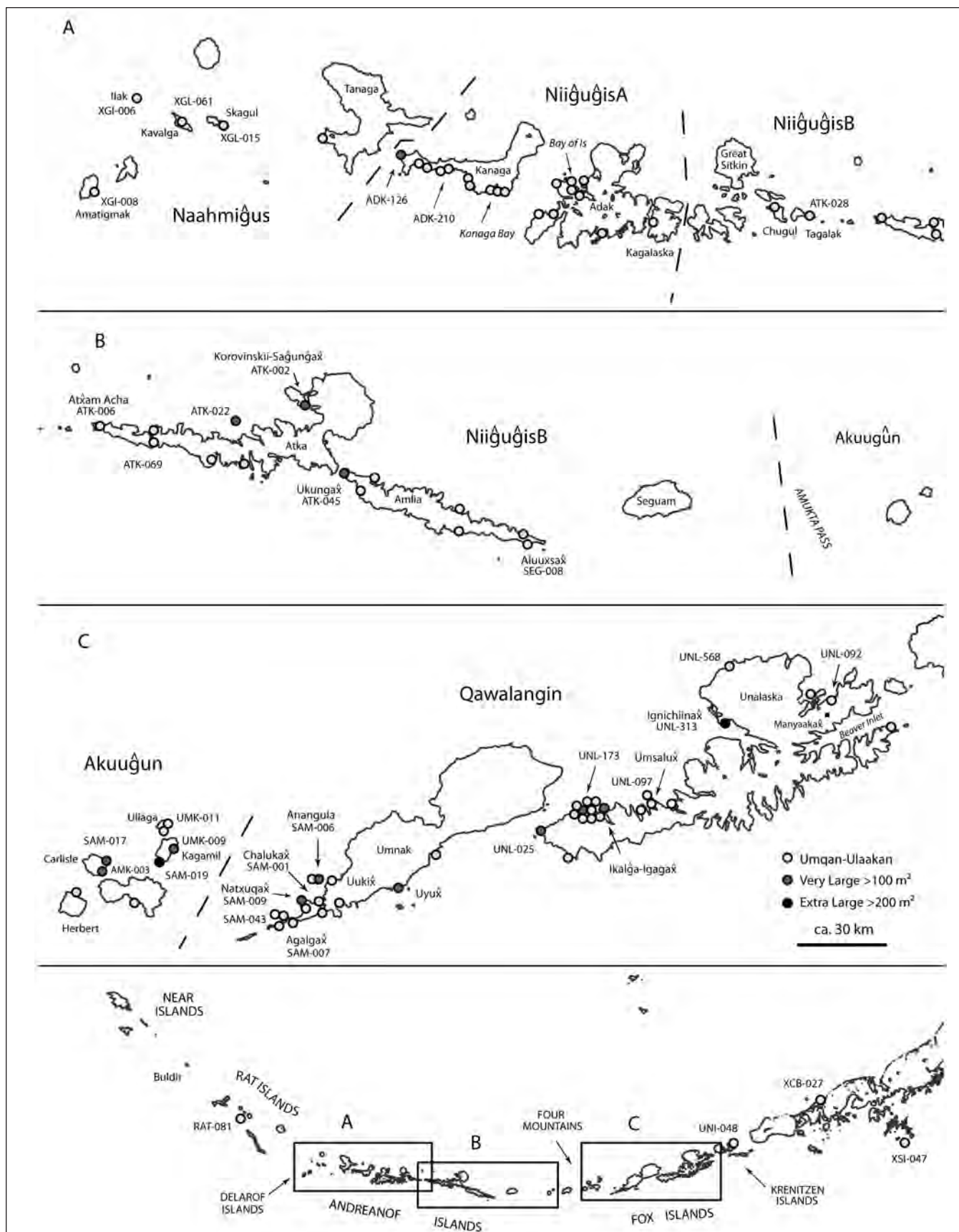


Figure 1: Umqan and ulaakan distribution across the Aleutian Islands.

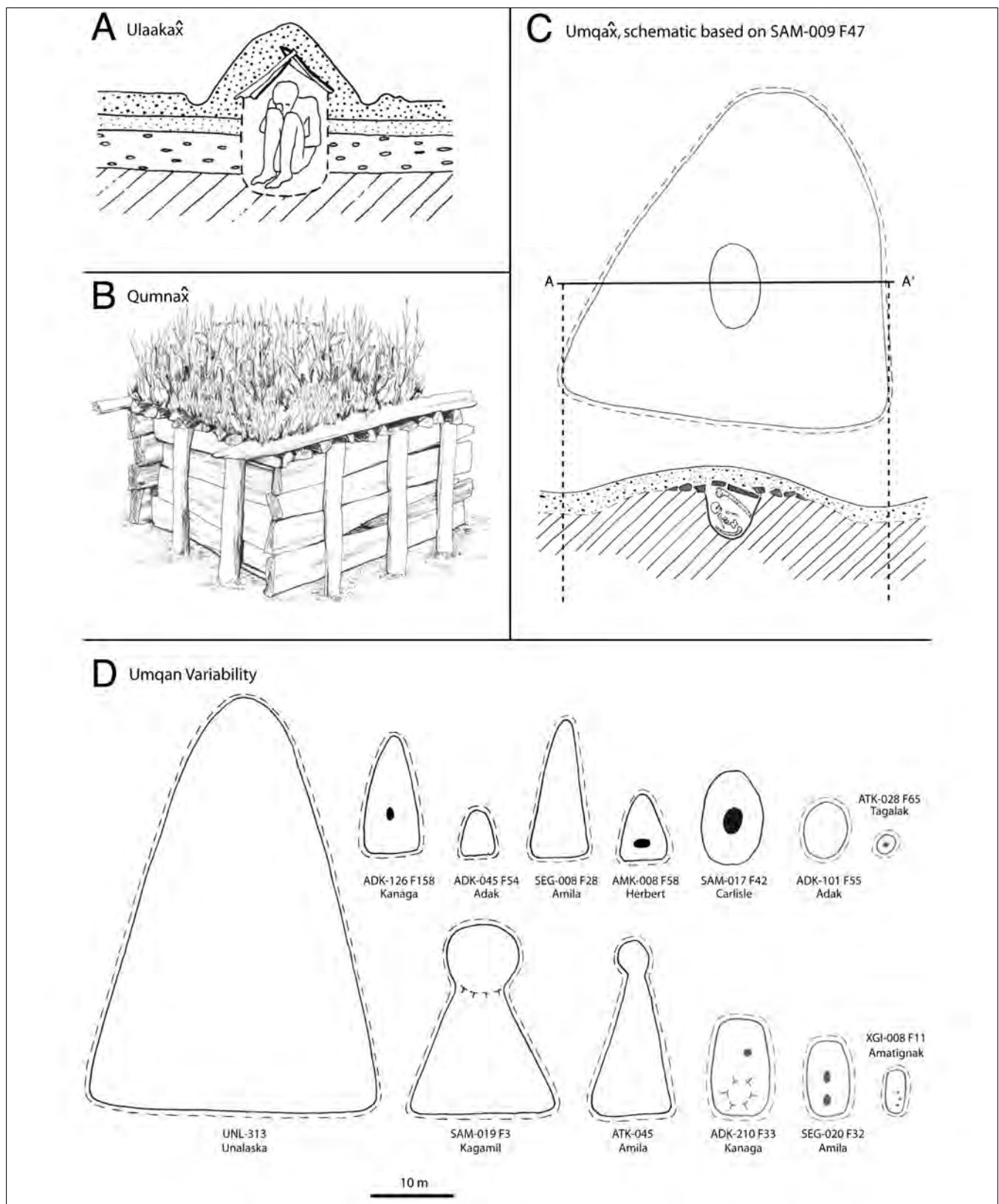


Figure 2: Umqan-ulaakan forms. A: conjectural ulaakan^x cross-section based on ethnohistorical descriptions. B: representative qumna^x modeled after the “sarcophagus” excavated by Weyer at Ship Rock. C: the relationship between an umqa^x surface feature and underlying stratigraphy, as reported by Aigner at Sandy Beach. D: a sampling of umqan-ulaakan forms recorded during the BIA ANCSA surveys, identified by site and island. Figure by Mark Luttrell.

pamiatnik, qumnaḡ),⁴ which, among the rich and the notables, was no more than a tall square box covered over with planks, sloping on two sides, and ornamented outside with different colors. For the poor it was a simple, small *baraborka* ([Russ.] hut), overlaid with planks and covered with grass, with earth piled on top. Such *groby* are called *ulyakig [ulaakaḡ]*. . . . These tombs or monuments were always built on some elevated place, according to the testament of the dead person.

Veniaminov (1984:198, 200), Sarychev (1806:77), and others noted also the former custom of killing a rich man's slaves or even his wife and children and burying them with the deceased as grave escorts. The priest Iakov Netsvetov obtained similar information about burials from Atkan informants in the 1830s, as related by Veniaminov (1984:369–370):

Funerals varied according to the wealth and status of the deceased. Notables, the wealthy and outstanding hunters were buried in particular ceremony. Such deceased were dressed in their best garments. The body was placed, in a sitting position, in a small house-like structure ([Russ.] *yurtochka*) dug in the earth and decorated in the best possible manner with grass mats and so forth. The legs were pulled up toward the body [so that the body was flexed]. The structure was then covered from above and totally covered with earth. If the deceased had been a hunter, all his hunting equipment was buried with him, unless he had willed it to someone. . . . The poor and ordinary common people were buried simply in a hole in the ground, but also in a sitting position.

Aleutian archaeologists have excavated and reported on several *ulaakan* burials, beginning with William Dall's investigations in the early 1870s. On Adak Island, probably at ADK-088 in Bay of Islands, Dall (1877:63) dug into a small mound near a midden site to expose a whale bone "sarcophagus" overgrown by ca. 60 cm of peat and containing a badly decayed male skeleton. In 1909, Jochelson (1925:30–34, 50–52) opened seventeen apparent *ulaakan* at three village sites on southwest Umnak Island: Natxuqaḡ (SAM-009), Aglagaḡ (SAM-007), and Uukiḡ (UMK-005). Many more were observed at the sites and at an abandoned village (UNL-058) on Hog Island in Unalaska Bay. Seven of the Umnak features contained identifiable skeletal remains, while in the others the bodies had decayed beyond recognition or the features were not burials. One pit at the so-called Aglagaḡ "lower village"

contained trade beads and brass fragments, and another had a whale bone post notched by an iron axe (Jochelson 1925:33). These findings indicated early post-contact age for the features, ca. 1750s–1790s. Decayed wood elements in other graves also suggested relatively recent ages. Of the confirmed burials, three contained more than one individual, and all the bodies appeared to have been placed in flexed positions. Although not recognized at the time, *umqan* also are present at both Aglagaḡ and Natxuqaḡ, better known as Hook Lake and Sandy Beach, respectively (Aigner and Veltre 1976; Frohlich and Laughlin 2002:97).

Archaeologically, Jochelson (1925:49) characterized *ulaakan* burial features as small pits or depressions as opposed to mounds, as in the following description:

Special burial pits were called *ula'kax'* from *u'lax'* [*ulaḡ*], house or dwelling, and *ka*, element of the potential mood, i.e., a possible house. Such burial huts, when they collapsed, left indications of their former presence in the form of almost circular pits 1 to 2 meters in diameter [and ca. 1 m deep]. There were burial pits for one, two, or three individuals, according to the number that had died at the same time. A burial pit for one person was designated as a "solitary burial hut" by the Aleut. In these pits the skeletons were found either in a sitting posture or on their sides.

In 1909–1910, Jochelson recorded several traditional tales, all evidently set in precontact times, which referenced *ulaakan* (Bergsland and Dirks 1990:66–69, 138–143, 224–227, 254–267, 542–561). The narrators included Unalaska elders Isidor Solovyov (1849–1912) and Kliment Burenin (b. 1843) and Atkan Mikhail Mershenin (1870–1943). One of Solovyov's stories featured an *ulaakaḡ* built some distance from the settlement where the deceased man had lived, requiring visitors to travel there by boat. Another Solovyov tale involved an exasperated mother who buried her child alive behind the village in a pit (*asux*) covered over with stones. Burenin's fragmentary tale took place in Koniag (Alutiiq) territory on the Alaska Peninsula or Kodiak Island, where two Unangan prisoners of war were burned alive and their charred remains placed in an *ulaakaḡ*. In Mershenin's story, an old woman feigned death and according to her wishes was placed in a burial hut with a fully equipped baidarka and other hunting implements. Shortly, she emerged and assumed the identity of a man in order to woo her own granddaughter.

In 1928, Edward Weyer excavated an intact box burial among many graves on the summit of Ship Rock

(UNL-097), just offshore from historic Umsaluḡ village (UNL-037) on western Unalaska Island (Fig. 1c). The grave presented as a vegetated mound approximately 3.6 x 3.0 m and about 0.7 m high, judging by the published diagram, and was situated in proximity to habitation features. The setting suggested the islet served as a burial ground and refuge for the nearby village. Weyer's careful excavation confirmed accounts of "tombs" for higher-status individuals: a well-made 2.1 x 1.2 x 0.4 m "sarcophagus" of hewn planks mortised and fastened with bone nails, which contained one carefully prepared adult male with numerous funerary objects and four other individuals of apparent lesser standing (Weyer 1929). The latter included an adult female, an adult male showing signs of violent death, a child, and an infant. Because it appeared the tomb had been sealed with all its contents and never reopened, Weyer interpreted the latter individuals as possible grave escorts for the rich man, as reported by Veniaminov and others. Three of the five flexed bodies lay within oval drum-like hoops covered with skins, Veniaminov's *zybka*. Absence of glass beads or metal, together with the remarkable state of preservation given the open-air context, indicated late protohistoric age, perhaps the early eighteenth century. Human remains from burial grottos elsewhere on the islet have been radiocarbon dated to the fourteenth through sixteenth centuries AD (Coltrain et al. 2006:540, 544). Table 1 lists funerary objects recovered from burials at Ship Rock (UNL-097) and other sites.

Aleš Hrdlička and his team opened an *ulaakaḡ* in 1938 on Kanaga Island, probably at ADK-059 near Kanaga Bay, but few details have been reported (Laughlin 1980:99). In 1991, BIA archaeologists revisited ADK-059 and nearby ADK-058, where they identified several *ulaakan* consisting of small oval mounds topped with pits, located on the peripheries of habitation areas. Unlike Jochelson, Bill Laughlin's (1980:99) description indicated a mounded surface expression for the burial features:

if no cave or rock shelter was available, a little wood and sod hut was constructed for the purpose [of burial]. Timbers, roughly the size of fence posts, were stacked against each other, forming a little conical tent. Over them, sod was placed. The grass on the sod continued to grow and eventually the little house blended into the color of the countryside, but could be distinguished by the shape. We found such a burial hut (*ulakan*) on Kanaga Island in 1938. The contracted skeleton of a robust male

lay on the floor, although it may originally have been suspended from the top.

During the 1991 BIA survey, Bland observed a partially eroded *ulaakaḡ* consistent with Laughlin's and other descriptions at a village site (ATK-028) on Tagalak Island, near the west end of Atka. Situated away from the main portion of the site, the feature presented as a conical mound about 2.5 m in diameter and 1.1 m high, with a small central pit and indications of a shallow bounding trench. Wind erosion at the feature margin had exposed remains of a small log structure. Yet another report of well-preserved *ulaakan* at a village site on southern Tanaga Island came from Gaston Shumate (1946:17), a soldier stationed at an emergency airfield on the island during World War II:

The bones we found on Tanaga were usually covered by mounds or hummocks in the burial area. The mounds, which made walking difficult, were hollow, held up by frameworks of driftwood. To enter, one merely had to burrow into the side of a hummock. The space inside was just big enough for a man.

In 1948, Ted Bank (1956:181–182) obtained more information about *ulaakan* from elder William Dirks (1882–1966) of Atka village:

Ulakuq was used by the old-time peoples for burying dead persons, if a cave was not nearby. An *ulakuq* looks like a small hill when you see it from the outside. It was made like a round hole in the ground and over the hole was placed bent driftwood or animal bones, like those of a large whale, so that it was hollow inside. The dead person was placed in the *ulakuq* with his clothes and other things he had used, and then mud and grasses were placed over the top.... *Ulakuq* found on many islands. Lots on Atka, mostly near the western end. On Ilak [XGI-006, Delarof Islands], same thing, all over top near edge of cliffs. Not like little hills—top cave in, so now look more like little round holes. Inside each one, an old-time Aleut, all doubled-up.

Both Laughlin and Bank understood (or presumed?) that burial in a cave was the preferred alternative, whereas Veniaminov (1984:196) reported just the opposite: "The poorest and the slaves were buried in caves."⁵ Other probable *ulaakan* excavations have occurred in the Fox Island group, particularly around Chalukaḡ (SAM-001), where an oval stone-walled house at the base of the midden mound dated cal BC 2195–1415⁶ (Laughlin's 1962 Trench A), roughly contemporary with the Margaret

Bay site (UNL-048) at Unalaska Bay. Chalukă occupations continued almost uninterrupted into modern times. Hrdlička's teams removed many burials from large block excavations in the late 1930s, and his student, Bill Laughlin, continued mining the site between the late 1940s and early 1970s. Unfortunately, reporting on burial contexts generally was subordinate to morphological analysis of the human remains (e.g., Laughlin 1958; Laughlin et al. 1979). New trenches excavated across the mound for water line projects in 1974 and 1980 uncovered numerous flexed pit burials that could not be associated with

dwellings, indicating they were likely *ulaakan* (Frohlich and Laughlin 2002:96; Wiersum 1980). Frohlich and Laughlin (2002:96) also made a cryptic reference to burials in stone boxes, "so far identified and excavated only on hills near the Chaluka mound."

Although there seems to have been a distinction between above-ground coffins (*qumnan*) and semisubterranean burial huts (*ulaakan*), the difference is seldom apparent at ground level to the field archaeologist. For the moment, we will consider both varieties as a single type using the term *ulaakă*. As can be gathered from the

Table 1. Contents of burial features.

Site Feature	Objects		Source
SAM-007 <i>ulaakă</i> (?)	trade beads brass fragments		Jochelson 1925:33
UNL-097 <i>qumnă</i> 2.0 x 1.5 x 0.5 m	5 sets of remains 3 wood hoops (<i>zybka</i>) double-bladed paddle 28 weapon shafts 17 bone points harpoon foreshaft float stopper wood helmet wood breastplate wood shield 5 wood bowls wood spoon 2 stone lamps 2 obsidian flakes stone pestle bone wedge	gut parka birdskin parka sea otter skins sealskin blanket 2 gut hoods sealskin thongs 3 skin bags sinew grass garments coarse grass matting fine grass matting skin sewing scraps unidentified ornament red ocher 6 amber beads fire drill socket	Weyer 1929
SAM-009 Umqan E 6.7 x 6.5 x 0.8 m	1 set of remains (1 pit) animal skins 59 jet beads copper fragment on wood disk metal wire		Aigner et al. 1976; Aigner and Veltre 1976:121
SAM-009 Umqan 47 5.8 x 5.0 x 0.9 m	1 set of remains (1 pit) jet labret or earspool		Aigner and Veltre 1976:121–123
SAM-006 Umqan 1 7.5 x 6.3 m	8 sets of remains (6 pits) 3 late-style labrets late-style basalt bifaces		Frohlich and Laughlin 2002:100–103
SAM-006 Umqan 2 6.0 x 5.0 m	3 sets of remains (3 pits) late-style stone lamp labret whetstone red ocher		Frohlich and Laughlin 2002:103–105
SAM-006 Umqan 3 5.5 x 3.5 m	2+ sets of remains (2 pits) 3 late-style basalt bifaces		Frohlich and Laughlin 2002:105–106

descriptions, *ulaakan* were common mortuary features at Unangan burial grounds in close proximity to habitation sites. Considering the large number of village sites on virtually every Aleutian island, the inferred large precontact Unangan population, and the more limited number of potential burial caves and rock overhangs, we suppose that *ulaakan* and interments within household compartments must have been the usual burial practices.

In summary, *ulaakan* consisted of flexed bodies placed in pits or in coffins directly on the ground surface; they were protected from the elements by conical driftwood or bone structures resembling small houses, which in turn were covered with grass and sod. The archaeologist could expect to find a pit, when the superstructure had decayed and sod cover collapsed, or the feature might present as a small mound topped by a shallow pit. *Ulaakan* apparently dating from the late protohistoric and early contact period have been reported or confirmed from at least the Delarof Islands east to the Fox Island group.

UMQAN

Related to *ulaakan* but in many ways structurally distinct from them are *umqan*. Whereas *ulaaka* explicitly designated a grave hut, the term *umqa* as applied to burial features appears to be a relatively recent archaeological innovation. *Umqa* simply means “pit, storage pit,” “like a freezer” according to Umnak elder Afenogin Kirillovich Ermeloff (1890–1956). Both terms are attested from the early nineteenth century (Bergsland 1994:91, 433, 443). However, the fact that Veniaminov did not elicit *umqa* as a burial term or describe such a conspicuous elaboration on the common *ulaaka* seems telling. The application of *umqa* to burial features evidently can be attributed to Bill Laughlin and Gordon Marsh, generally regarded as the first to recognize these distinctive mounds in 1952 at the Anangula Village site (SAM-006), just offshore from southwest Umnak Island. The type or model *umqa* is a large triangular earthen mound:

Looking down from the ridge behind the village we discerned on the flat northwest or west of the site a half dozen structures each outlined by two trenches in the form of a V, with the apex of the V in every case on the uphill end. Our old Aleut informant [Ermeloff], upon questioning, described these as storage pits for roots (Aleut “*umqan*”). The purpose of the V-shaped trenches was to drain the

floors of the root cellars that lay inside each V. There was actually a small pit in the middle of each V, and one large V near the edge of the midden enclosed three such pits. Test excavations of a number of “*umqan*” revealed that they contained only floors constructed of whole and fractured stones (Laughlin and Marsh 1954:28–29).

Instead of mortuary features, testing in 1952 and informant testimony indicated *umqan* were related to food storage. While Unangan regularly harvested a variety of roots (Bank et al. 1950:74–77), the extent to which they were gathered and stored in quantity prior to the advent of gardening in the Russian period is unknown. We wonder how storage would have been enhanced by constructing substantial earthworks around food pits. Moreover, *umqa* (“pit”) seems an awkward term for what plainly are mounds. Other Unangan words for “pit” include *asux*, *chaxa*, and *ixti*, whereas the terms *chagaada* and *kinuga* or *kinugaada* specifically apply to food caches (Bergsland 1994:103, 126, 181, 240). *Qalixsa* designates a cache hole more generally, and *agaya* applies to a storage facility or side room inside a dwelling (Bergsland 1994:22, 304). There are also two terms for design elements representing “triangular hills,” *aygiidan* (from *aygi*, “hillock”) and *chigidan*, but neither word has an obvious etymological relation to *umqa* (Bergsland 1994:119, 137; Jochelson 1968:66).⁷

However, two traditional tales recorded by Jochelson in 1909–1910 featured hummocks (*inuutkaadan*) that concealed secret dwellings, suggesting a relationship between small mounds and *ulaakan* (Bergsland and Dirks 1990:358–363, 478–483). The more obvious connection is to ordinary dwellings that were built in a similar fashion. Both stories were set in precontact times at unnamed settlements. In the tale by Umnak elder Timofey Dorofeyev (b. 1865), a suspicious wife lifted a hummock behind the village to discover the house of her husband’s clandestine lover, whom she immediately killed. Similarly, a story by Umnak elder Ivan Suvorov (ca. 1867–1934) told of a boy who lifted a hillock near his settlement and found within it the house of his mother, cloistered in self-imposed exile from her villainous husband. That very night the boy killed his father and brought his mother back to the village.

Laughlin and Marsh’s observations at Anangula may have been preceded by Captain James Cook, however. While anchored at English Bay, northwest Unalaska Island, in August 1778, Cook (Beaglehole 1967:161–162)

penned a description of what he believed was the local burial practice:

The Oonalaskadales bury the dead on summits of hills and raise a little hillock over the grave, in a walk into the Country, one of the Natives who attended me, pointed out several of these graves. There was one by the side of the road leading from the harbor to the Village over which was raised a pile of stones, it was observed that every one who passed added one to it. I saw in the Country several stone hillocks, that seemed to have been raised by art. Many of them were of great antiquity; the stones being cemented together and become as it were one stone, but it was easy to see that the hillock was composed of a great number and variety of sorts, nor was it very difficult to separate them.

Cook's account has been interpreted as possibly relating to *umqan*, but he appeared to conflate burial mounds and rock cairns (Aigner and Veltre 1976:126; Frohlich and Laughlin 2002:108). Sauer (1972:161–162) of the Billings Expedition provided clarification with respect to stone features on Unalaska Island, which he attributed to an altogether different purpose: "I observed, in crossing the mountains, piles of stones. These are not burying-places, as has been supposed, but serve as beacons to guide them in foggy and snowy weather from one dwelling to the other; and every person passing adds one to each heap."

Merck, physician and naturalist for the Billings Expedition, obtained the Unangan term *anetschhun* (probably *anachxun* or "cairns of rocks or turf") for such trail markers, but they were better known as *hadgun* (Bergsland 1994:13, 736). John Yatchmeneff (1905–1944) of Unalaska reported a prominent cairn called Manyakaax̄ at the highest point along a former trail from Unalaska Bay to Beaver Inlet; passers-by deposited rocks there to ensure good luck (Bergsland 1994:274). The place-name evidently derived from the Russian *man'yák*, "specter, phantom." Similarly, Veniaminov (1984:133) described the same or a closely related variety of rock mound on one of the Shumagin Islands, situated off the south coast of the lower Alaska Peninsula:

on each of the four land necks of Chernoburoi Island is a moderately large mound [*kolmik*] or pyramid, about 4 *arshins* [ca. 3 m] high, which the Aleuts call *hadgun*. These mounds, composed of small round pebbles, were formed because in former times some of the old men, wanting to know

how long they would live, brought the stones and threw them on top of the pile. If the stones remained on top, then this meant they would soon die. Probably they noted also at what level the stone stopped [rolling] and the speed with which it fell, etc. But how were the original mounds formed? That is not known.

Lucy Johnson's team located one of the Chernabura mounds (XSI-047) in the mid-1980s. In 1989, BIA archaeologists surveying ANCSA claims on northeast Akun Island observed another cairn in the fog-shrouded pass between Saagūx̄ village (UNI-048) and Helianthus Cove. A similar votive tradition prevailed among the Cupiit on Nunivak Island, in the Bering Sea north of the Aleutian chain. At Nuwatat ("rock piles created by people," XCM-085), Cupiit elders reported that a large cairn at the site was built up over an extended period of time by people each adding a stone as they passed to ensure good luck and longevity (Pratt 1995:313–317). Such monuments and customs had wide currency on both sides of Bering Sea,⁸ but while they appeared to share some attributes with *umqan* (i.e., stones), they were not burial features.

In 1937, Laughlin's mentor, Aleš Hrdlička, evidently tested two *umqan* features, or possibly *ulaakan*, on a sloping bench a few hundred meters west of Chalukaax̄ (SAM-001). According to Hrdlička (1945:323):

go first to see the sheep herder nearby. Goes with us to point out several small low but clearly artificial hillocks scattered over about an acre of their ground, near an old small site [SAM-025?] facing the bay close by. On the side of each "mound" is seen a hollow from which evidently the earth for the little hillock was taken. The piles range from 2 to 4 feet in height, are roughly round and each shows a flat oblong about 18" x 30" depression on the top. In the mounds are stones, brought there and laid with some order. Dig into two—over 2 feet down—find nothing, perhaps not deep enough, but for the present can not do more.

Reference to possible bounding trenches, pavement stones incorporated into mound constructions, and shallow pits on the mound summits indicated the features were *umqan*, as later excavations would show. Moreover, examination of 1967 aerial photography for Nikolski village clearly shows several distinct triangular *umqan* and other suspected burial mounds directly west of Chalukaax̄ and seemingly oriented toward the village site (Fig. 3). The features become less conspicuous in later imagery, as a

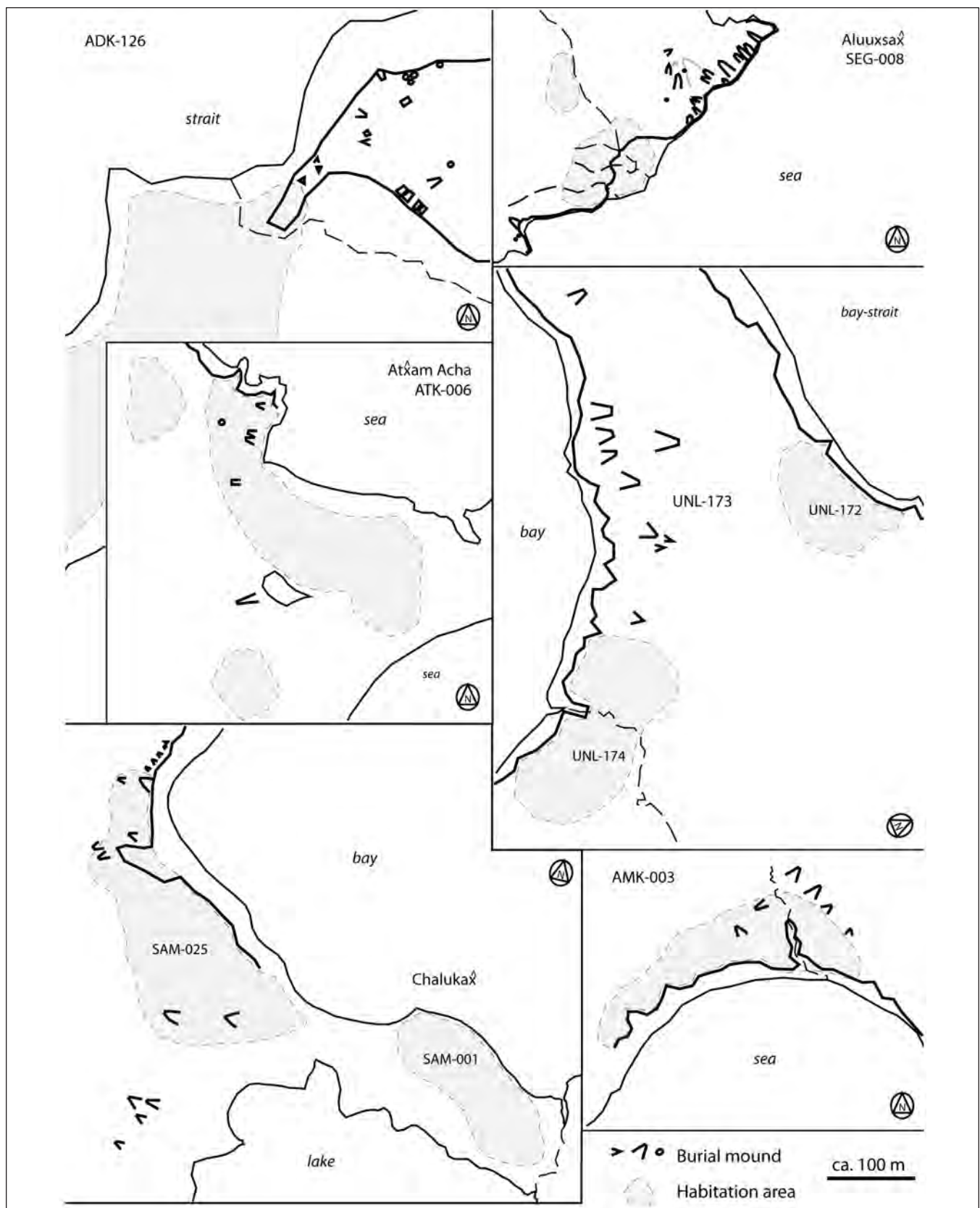


Figure 3: A sample of site plans based on BIA ANCSA surveys. Filled polygons indicate approximate limits of habitation areas and midden mounds; small black chevrons and rectangles represent umqan or ulaakan; bold irregular black lines indicate prominent scarps or bluff edges.

consequence of ongoing local development and use, especially vehicular traffic and livestock trampling.

After Laughlin and Marsh's discoveries at Anangula Village, research biases favoring excavations into deeply stratified midden sites, emphasis on early and mid-Holocene components and explorations of mummy caves, as opposed to studies of horizontal structure and organization of near-surface site remains, left *umqan* largely ignored until 1972 (but see Bank 1953; Martinson 1973). During a wide-ranging Aleutian ship-based survey that year, Allen McCartney (1972:19) observed "4 V-shaped drainage ditches situated in a low ravine above beach" at a sprawling village site (UMK-011) on Uliaga Island, in the Islands of Four Mountains group. Presumably, he recognized them as equivalent to the mounds at Anangula. However, in his synthesis of Aleutian prehistory, McCartney (1984:131) described *umqan* as primarily storage structures: "these V-shaped features are likely the remnants of cache pits that were secondarily used as burial pits." If so, we might reasonably infer that such mounds were for relatively low-status individuals. BIA archaeologists investigated UMK-011 in 1991 and located five triangular *umqan* averaging 13.9 m long and 9.3 m wide at the base. They also mapped two smaller oval mounds interpreted as *ulaakan*.

Significant new information emerged in 1972, when Jean Aigner and Doug Veltre (1976) conducted a broad survey of southwest Umnak Island, locating, mapping and testing numerous sites. In the course of that work, at least sixty-two triangular-to-subtriangular *umqan* were identified at or adjacent to six villages (26% of sites investigated). Measured features at five sites ($n = 43$) averaged 8.3 m long, 6.3 m wide at the base, and about 1 m high. The largest example, Umqan 5 at Idaliuk East (SAM-042), was 15.8 x 8.3 x 1.7 m. Tests into eight of the features at five sites established without any doubt that all of them were burial mounds. The researchers found that Umnak *umqan* typically displayed the following attributes (Fig. 2c):

- a low mound of conspicuously large size, bounded on at least two sides by shallow trenches and topped by one or more small, off-center pits;
- triangular or teardrop shape, rarely rectangular, with apex located upslope;
- placement on a relatively low angle, often at or near an abrupt slope break (i.e., bluff edge); and
- association with a habitation site, generally near the periphery and facing the dwelling ruins, less commonly at some remove and facing the sea.

Tests at Hook Lake near Aglagaġ (SAM-007), at Idaliuk West (SAM-043), and at Sandy Beach (Natxuqaġ, SAM-009), including excavation of two features at Sandy Beach, revealed a common construction method for the *umqaġ* (Aigner and Veltre 1976; Aigner et al. 1976). A burial pit was excavated to a depth of ca. 0.5 m to receive the treated body, then lined and capped with a driftwood or whalebone structure⁹ in the manner of an *ulaakaġ*. Next, trenches ca. 0.3–1.0 m were dug around the structure, and the sod and soil were heaped around and over the burial to form a low mound ca. 0.2 m above the ground surface. The mound then was paved with a horizontal layer of stones, and the whole was capped by another lift of fill and sod (cf. Hrdlička 1945:323). The stone pavement suggests some relationship to the rock cairns (*anachġun*) described above. Conceivably, the pavement formed the finished surface, which gradually became covered by sediment accumulation and vegetation growth. Curiously, stones were not observed by BIA archaeologists at any of eight partially eroded *umqan* recorded during the 1991 survey.¹⁰ Over time, one or more depressions formed on the *umqaġ* summit, corresponding to the number of subsurface burial pits. Typically, though, one individual was buried near the feature center (Aigner and Veltre 1976:121).

With respect to antiquity, the researchers found that in all Umnak cases the burial pits had been dug through Ash IV, a local tephra marker bed estimated to date from 3000 C¹⁴ years BP, but possibly having a maximum age of cal BC 970–5 AD (Aigner et al. 1976:128; Miller and Smith 1987:436). Of the two excavated features at Sandy Beach, Umqan E (6.7 x 6.5 m) contained the remains of a child buried with a copper disk and metal wire that suggest early contact-period age, ca. 1750s–1790. Adjacent Umqan 47 (5.8 x 5 m) contained a middle-aged female; absence of metal or trade goods there indicate likely protohistoric age, ca. 1450–1740s. Robert Black, geologist for the survey, surmised that the combination of weathering, acidic volcanic soils, vegetation growth, and continued eolian deposition likely would obscure *umqan* surface expressions within ca. 600 years, suggesting a maximum limiting age (Aigner and Veltre 1976:121). However, the researchers observed on the surface at nearby Sandy Beach Bay (SAM-040) "faintly discernible depressions" representing dwellings that dated from ca. cal BC 3350–2310 and earlier (Aigner 1983:24), indicating that *umqan* potentially could persist on the landscape for well over half a millennium.

During the 1973–1975 field seasons, Bruno Frohlich, Sara Laughlin, and others substantially excavated three more *umqan* at the Anangula Village type site (Frohlich and Laughlin 2002:100–106). Altogether, they mapped fifteen more or less triangular *umqan* on the hillside behind the village, portions of which had been occupied as early as cal BC 5000–4590. The burial mounds were considerably younger, since like Sandy Beach they were constructed after deposition of the Ash IV marker bed. Features averaged 9.4 x 7.1 m. Umqan 6, the largest mound, topped with four summit depressions, measured 25.7 x 14.5 m; Laughlin and Marsh noted this monument in 1952. Like the Sandy Beach *umqan*, Anangula features also appeared to consist of *ulaakan*-like burial pits capped by whale bones or rock slabs and covered by stone pavements and earth. Umqan 1 (7.5 x 6.3 m) contained six such pits, only one having surface expression. Overlapping pits and at least one pit interpreted as predating trenching and mound construction indicated a substantial period of use for the cemetery area and multiple burials within some *umqaḡ*. Burial A contained three individuals, including two infants. Burial C, the best-preserved pit, contained a middle-aged female of the Neo-Aleut physical type and was capped by driftwood logs and whalebone elements. Umqan 2 and 3 (6 x 5 m and 5.5 x 3.5 m, respectively) were similarly constructed; each enclosed two or more burial pits. All the burials in Umqan 2 were infants. Funerary objects associated with the features are listed in Table 1.

Frohlich and Laughlin (2002:115) reported a maximum age for the Anangula features relative to subjacent Ash IV but felt that most were “probably not older than a few hundred years.” Burial C in Umqan 1 likely postdated the tenth through thirteenth centuries AD, based on the oldest radiocarbon ages for the Neo-Aleut physical type in the Fox Islands (Coltrain et al. 2006:540–541). The general state of preservation and absence of trade goods suggests the Anangula *umqan* may be approximately contemporaneous with *umqan* at Sandy Beach, estimated at 1450–1750s or earlier. However, assertions by the excavators that *umqan* burials (as opposed to simple *ulaakan*) persisted well into historic times seems only weakly supported by Cook’s vague 1778 account and metal from the infant burial at Sandy Beach (Aigner and Veltre 1976:124; Frohlich and Laughlin 2002:106). Glass trade beads or an identifiable metal object in association with a burial would be more definitive, as in the possible *ulaakaḡ* at Aglagāḡ. While rare, metal objects were available in aboriginal

times from several sources (e.g., Asian shipwrecks, Native trade networks).

In 1974, the known distribution of *umqan* was extended well beyond Umnak Island when Veltre identified five typic (i.e., the type shape), inverted V-shaped *umqan* on the bluff overlooking Korovinskii village (Saḡuuḡaḡ, ATK-002) on Atka Island (Veltre 1979:181, 206–208). Excavated components at the habitation area below spanned later prehistoric times (cal BC 90–340 AD) through the 1870s. The discovery of associated *umqan* was not unexpected and confirmed suspicions that they constituted a regional Unangan burial practice (Aigner and Veltre 1976:126). At Korovinskii the features averaged 13.6 x 7.2 m, exceeding in size all the Umnak examples except the largest feature at Anangula Village. Limited testing at two features (F72, F74) revealed both were covered by “main ash,” a conspicuous local tephra marker bed with an estimated deposition range after cal AD 1290–1490 but prior to the 1740s (Veltre 1979:259–264, 2001:206). Thus, the Atka *umqan* appeared to be late prehistoric or protohistoric in age, similar to the Umnak sites, and likely were associated with pre-eruption components at the settlement.

In 1983, BIA teams working on ANCSA Section 14(h)(1) claims on western Adak Island, in the Andreanof group, revisited sites located previously by Frohlich and Kopjanski (1975) and identified subtriangular or U-shaped *umqan* at three localities in the Bay of Islands (ADK-088, ADK-104, ADK-120). Follow-up work in 1991 located more *umqan* or *ulaakan* at six sites in the Bay of Islands (ADK-045, ADK-101), Three Arm Bay (ADK-025), along the west coast of Yakak Peninsula (ADK-032, ADK-034), and in Camel Cove on the south island coast (ADK-109).

The Aleut Corporation’s Section 14(h)(1) claims on Unalaska Island, east of Umnak, were constrained by land status issues, but in the course of limited investigations in 1984, BIA archaeologists conducted rather extensive helicopter reconnaissance along portions of the west coast. The team observed conspicuous triangular *umqan* at eight “non-ANCSA” sites (UNL-153, UNL-171, UNL-172, UNL-177, UNL-178, UNL-181, UNL-568), including several features on the hillside above Makushin village (Ignichiinaḡ, UNL-313). During separate surveys in 1986, Veltre et al. (1986:31–32, 55, 56) relocated the features at UNL-173 and UNL-177 and observed more *umqan* at UNL-034 (Ikaḡa-Igagaḡ). With respect to the ANCSA claims, oval *umqan* or *ulaakan* were identified at three Unalaska sites (UNL-025, UNL-027, UNL-108).

Independently, Shawn Dickson and Chris Wooley have visited or observed these and possibly other Unalaska *umqan* sites over the last decades.

Rick Knecht probed the Makushin *umqan* (UNL-313) in 2000. In a row of four typic triangular mounds on the hillside facing the village, one measured an astonishing 53 x 37 m, the largest recorded monument from anywhere in the Aleutians (Knecht 2001). Two soil probes into this behemoth suggested construction “no less than 2,000–3,000 years ago,” based on overlying tephra tentatively correlated with ash beds at Summer Bay (UNL-092), on northeast Unalaska (Knecht and Davis 2001:277). Knecht’s estimate substantially exceeded the maximum age of about 600 years proposed by Black (Aigner and Veltre 1976:121). At the Summer Bay site, four large *umqan* (ca. 20–25 m long) overlooked a degraded site interpreted as a warm-season camp occupied about cal BC 40–80 AD (mean of five dates) (Knecht and Davis 1999). Tephra capping the habitation site were visually correlated with ash covering the nearby *umqan*. According to Knecht and Davis (2001:277), “in testing the trenches, we were surprised to find a thick series of bedded tephra on top of the disturbed soils left by their prehistoric excavators, indicating that the trenches were probably contemporaneous with the occupation of the Summer Bay site around 2000 BP.”

Other BIA work occurred in 1985 on well-surveyed Amchitka Island, one of the Rat Island group west of the Delarofs. Significantly, no *umqan* or *ulaakan* were encountered at any of the eighty-five mapped sites, although many sites had been damaged by military construction and vandalism, ca. 1943–1970s. Nevertheless, it appeared that 100-km-wide Amchitka Pass marked the western limit of their distributions, until 2009 when Caroline Funk (2011) discovered an *ulaaka*-like outlier on Rat Island (RAT-081). The U-shaped or subtriangular (?) mound measured about 5.2 x 2.5 m and appeared to have a depression near the base. Farther west, no extradwelling burial features have been reported to date for Buldir Island or the Near Island group. To the east, typic *umqan* have not been reported beyond Unalaska Island, although they may be present in the Krenitzen Island group. In 1988, BIA archaeologists described an apparent *ulaaka* or small *umqa* at a village (XCB-027) near Moffet Lagoon on the north side of the lower Alaska Peninsula, which hints at the prospects for further discoveries during more careful surveys. The Moffet feature

was circular, about 6 m in diameter and 2 m high, but without a summit pit or ringing trench.

In 2001, USFWS captain Kevin Bell showed BIA archaeologists what government fox trappers had characterized as “four huge letters” dug into the hillside above historic Ukunga village (AKT-045), at the west end of Amlia Island in the Andreanof group. In fact, it was a row of monumental triangular *umqan* with associated smaller burial mounds overlooking extensive habitation remains dating from prehistoric times through the 1870s. The largest example (21.8 x 10.0 m) had a circular mound attached to the apex that gave the feature a keyhole shape in plan view.

1991 BIA SURVEYS

BIA ANCSA surveys in April through August 1991 substantially enlarged the known *umqan-ulaakan* distribution and generated much of the data described below. Beginning at Amatignak Island (XGI-008), in the Delarof group, BIA teams encountered *umqan*-like mounds. Lively crew discussions ensued in the following weeks as to whether relatively small oval and circular mounds should be considered *umqan*, since they diverged markedly from the typic V-shaped monuments described for Umnak and Atka. As survey progressed eastward, the archaeologists observed suspected burial mounds in a variety of shapes and sizes, and noted that the different forms co-occurred at many sites. The distinction between classic *umqan* and apparent non-*umqan* (*ulaakan*?) features blurred as more data accumulated. At the same time, the size, visibility (distinctness), and number of features per site appeared to increase along the west-to-east transect.

Altogether, at least 200 presumed burial features were identified at forty-five settlement sites on fifteen islands.¹¹ By the end of the season, it appeared that *umqan* consisted of three general types: small conical mounds, with or without bounding trenches, topped by pits about 1 m in diameter and up to 1 m deep; larger and more subtriangular oval mounds, usually with one or more summit pits and a surrounding trench; and large inverted V- and U-shaped mounds of classic form, rarely rectangular, and usually with lateral trenches and superior pits. Where present, bounding trenches measured at least 30 cm wide and deep, circumscribing the mounds completely or only partially. Summit pits usually were located along the longitudinal axes, generally closer to the base, but they could be irregularly placed. In addition to pits, the surfaces of

some *umqan* had superimposed “moundlets,” conceivably *ulaakan* structures that had not yet collapsed to form depressions.

Burial mounds of all shapes conformed to the general site patterns described in the 1970s for Umnak and Atka. Fig. 3 depicts plans for several sites representative of *umqan* settings. At intrasite scales, *umqan* were found most often at the edges of settlements, only occasionally within habitation areas, and in rare instances at more or less isolated localities (e.g., ATK-069, SAM-019). Like other known sites (e.g., ATK-002, SAM-007, UNL-313), some features were arranged in rows traversing a hillside or bluff edge (e.g., ADK-126, ATK-045, SEG-008, AMK-003). Mounds were built on a slight prominence, often overlooking the village, but commonly facing the sea from a bluff edge. Proximity to a habitation site, local ground slopes, and well-defined slope breaks appear to determine aspect (orientation), rather than alignment with any cardinal direction. On a regional scale, the known western limit of *umqan* distribution at Kanaga Island (Laughlin 1980:99) was extended to the Delarof group. As noted already, burial mounds were not encountered to the east beyond Unalaska Island. However, land selection issues and limited pre-1975 site inventories for the Krenitzen group constrained ANCSA Section 14(h)(1) claims on these islands, so we consider this subregion to have good potential for future discoveries.

By 1991, the status of *umqan* as burial features was a settled matter, based on the 1970s Umnak excavations. But to dispel any lingering suspicions that these earthen mounds could have any relation to storage pits, we note the following cases. At Kagamil Island (SAM-019), the BIA team recorded one *umqaḡ* measuring 27 m long, 20 m wide at the base, and about 1 m high, which would amount to an estimated 250 m³ or almost 9,000 cubic feet of fill (Fig. 2d). Like the example at ATK-045 on Atka, a circular mound attached to the apex gave the feature the appearance of a giant keyhole. It lay about 350 m from the nearest habitation site, which consisted of two house depressions. Located near the edge of a slightly backward-sloping terrace that dropped precipitously 75 m to a rocky shore, the *umqaḡ* had its apex somewhat lower than the base, off-setting any drainage benefits its large trenches may have afforded. This feature was more than 5 km from the nearest settlement of any size but close to the well-known Warm Cave–Cold Cave burial

grottos, where human remains have been radiocarbon dated to the thirteenth through seventeenth centuries AD (Coltrain et al. 2006:540). The massive size and remoteness of the Kagamil *umqaḡ* from a village made it an implausible food storage facility, whereas close proximity to the burial caves is consistent with a mortuary function. The fact that the “drainage” ditches sloped backward indicates a culturally determined rather than a functional design, although run-off diversion may have been the original purpose.

Another example comes from the southeast end of Amila Island (Fig. 3). At Aluuxsaḡ (SEG-008), twenty of thirty-eight surface features (52%) were identified as *umqan* or *ulaakan*. Most of the burial mounds at the site were located on an elevated area about 100–200 m east of habitation remains and midden deposits dating from at least cal AD 665–1025. Triangular ditches aligned with nearby features but without associated mounds were also observed at the burial ground, suggesting older cemetery plots, moundless variants, or unfinished earthworks. If the features were storage pits, we wondered why resources would have been stored at such a distance, across a stream and on an adjacent knoll, when the terrain among the dwellings appeared just as well drained. Nor would the separation of caches from dwellings have served to conceal the stores from plundering enemy warriors, since they were plainly visible from the village.

2011 GOOGLE EARTH SURVEY

To supplement ground-based inventories described so far, O’Leary attempted to identify additional burial mounds using medium-resolution imagery available through Google Earth for parts of the Aleutian archipelago. Very large triangular *umqan* were readily visible at known sites (e.g., ATK-006, UNL-313), suggesting that more examples could be identified remotely at other sites or unsurveyed areas. Desktop “surveys” were conducted along coastal segments with adequate photo coverage, from the Rat Island group to the lower Alaska Peninsula. Whereas previously reported *umqan* often could be detected, only a few new features were observed, in some cases identified only tentatively (e.g., XGI-061). *Umqan* sites on southwest Unalaska identified by BIA aerial surveys in 1984 were mostly confirmed (e.g., UNL-173, Fig. 3).¹²

DATA ANALYSIS

METHODS

We performed simple statistical and spatial analyses on the burial mound data generated in 1991 to look for patterns related to feature size and shape. To the extent possible, we folded into the 1991 series information from BIA surveys from all years and comparable data obtained by other researchers, notably Veltre (1979:206–208) for Korovinskii (ATK-002) on Atka Island, Aigner and Veltre (1976) and Frohlich and Laughlin (2002) for southwest Umnak Island, and Veltre et al. (1986) and Knecht (2001) for western Unalaska Island (Table 2). Although more than twenty *umqan* sites are known for Unalaska, attributes were available for only a few features. Our metric and observational data consisted of six attributes: shape (triangular, rectangular, oval); size (length, width, height, area); presence or absence of trenches, summit pits, and moundlets; and aspect, that is, orientation of features relative to the presumed habitation site or the sea. For this analysis, the *ulaaka*–*umqa* distinction was subordinate to shape and size classifications based on the field data.

Because the pooled data set represented work by many archaeologists over several decades, there were inherent data-quality issues. The BIA surveys were conducted pursuant to Native land claims legislation rather than as part of a research program, and only late in the 1991 season did Bland (1992a, 1992b) conceive the idea of compiling and analyzing the burial data. Although archaeologist Sara Laughlin had specialized knowledge of *umqan* from her work on Umnak, in practice, features could be described by any BIA crew member. Consequently, attributes such as plan view shape, distinctness of mound expression, and presence of bounding trenches were less consistently and more subjectively recorded than if features had been described by a single investigator intent on the study of burial mounds. Measurements also were inconsistent for triangular *umqan*, with some observers reporting maximum mound length (perpendicular to base) and others recording lengths for each lateral side (cf. Aigner and Veltre 1976:117). These same issues applied to the non-BIA data. Aggregating comparable data from all available sources yielded 288 features for sixty sites. Including other confirmed, reliably reported, and remote-sensed sites where no feature descriptions were available, the number of known sites was eighty-six (Table 2).

Shape, unfortunately, was found to be a rather subjective attribute; we saw this in field notes as a gradient from oval to subrectangular to U-shaped to triangular. Nevertheless, shape constituted the means for defining analytical units and subsampling the data set. Bland's (1992a, 1992b) solution for shape ambiguities was a binary classification of features as rectilinear versus curvilinear. Here we have replaced his original scheme with a tripartite one: triangular, rectangular, and oval. The triangular class consisted of any features approaching a three-sided mound, including V-, U-shaped, and subtriangular variants. The rectangular class included the few roughly quadrilateral features. Oval shape conformed to Bland's curvilinear class by combining circular and oval mounds, which occurred in all size classes. Features described as circles or nearly circular probably were ovals.

With respect to size, field values were standardized as maximum feature length and width ("height" and base for triangular mounds), excluding bounding trenches where present. Size directly reflected relative labor invested in mound construction, and by inference possibly the social status of the interred. To investigate the perceived west-to-east size gradient for burial mounds, areas (m²) were calculated by simple geometric formulas based on three idealized shapes. Typical *umqan* were assumed to be isosceles triangles for our analysis. However, as a consequence of common deviations from model forms, area values must be considered approximations.¹³ We examined size in more detail for triangular and oval mounds, since these shape classes had the widest distribution and presented the most interesting possibilities for identifying monuments for important individuals or settlements. Features were tallied initially by 10 m² size classes. We classified areas less than 20 m² as small, ca. 20–50 m² as medium size, and mounds greater than 50 m² as large. The large mound category was further subdivided for extreme size ranges.

Initially, we contemplated calculating and comparing feature soil volumes for the data set. However, few longitudinal or transverse profiles were available, and even maximum mound height was not reported consistently by the 1991 BIA crew. Consequently, size classes based on sediment volumes would be very crude. Moreover, differences in mound height and volume may reflect feature age as much as original design, due to weathering (cf. Frohlich and Laughlin 2002:96).

Table 2. Summary umqan-ulaakan inventory.

Shape codes: *T* = triangular; *ST* = subtriangular; *U* = U-shaped; *SR* = subrectangular; *O* = oval; *C* = circular.

*AA- indicates a BLM serial case file number assigned to an ANCSA Section 14(h)(1) claim; it serves as the identifier for related BIA ANCSA site reports and records. Correlations with AHRS tri-glyphs are approximate.

Tribe	Island	Site	Min Count	Shape	Aspect	Source*
	Rat	RAT-081	1	O	?	Funk 2011
Naahmiġus	Amatignak	XGI-008	6	O, ST, SR	Sea	BIA AA-12023
	Kavalga	XGI-061	3	ST	Sea	Google Earth
	Skagul	XGI-015	1+	ST	Sea	Google Earth
	Ilak	XGI-006	5	O	Sea	BIA AA-12036A
	Tanaga	XGI-021	1?	?	?	BIA AA-12047
NiġuġisA	Kanaga	ADK-218	8	O, C, SR	Site	BIA AA-12052
		ADK-205	6	T, ST, O	Site	BIA AA-12053
		ADK-210	7	U ST, SR	Sea	BIA AA-12054
		ADK-051	1	O	Sea	BIA AA-12055
		ADK-222	4	C, ST	Site	BIA AA-12057B
		ADK-058	8	O, C	Site	BIA AA-12062
		ADK-059	6	O, C	Site	BIA AA-12063
		ADK-060	2	O, T	Sea	BIA AA-12064B
		ADK-067	3	C, O	Sea	BIA AA-12071A
		ADK-068	1	C	—	BIA AA-12072
		ADK-126	17	O, T, ST, U, C	Site	BIA AA-12077
	Adak	ADK-025	8	ST	Site	BIA AA-12087
		ADK-032	2	C	—	BIA AA-12093
		ADK-034	8	O, C	Sea	BIA AA-12096
		ADK-045	5	ST	Sea	BIA AA-12107
		ADK-088	1	U	Sea	BIA AA-12110
		ADK-101	5	O, ST, C	Site	BIA AA-12118
		ADK-104	1	SR	?	BIA AA-12121A
		ADK-109	2	O, ST	Sea	BIA AA-12127
		ADK-120	2	U, ST	Site	BIA AA-12138D
	Kagalaska	ADK-001	1	O	Site	BIA AA-12141
NiġuġisB	Chugul	ATK-029	3	ST, O	Sea	BIA AA-12162
	Tagalak	ATK-028	1	C	—	BIA AA-12163
	Atka	ATK-006	4	ST, SR	Sea	BIA AA-12165
		ATK-069	1	SR	Site	BIA AA-12166B
		ATK-008	1	ST	Sea	BIA AA-12167
		ATK-010	7	ST, SR, C	Site	BIA AA-12169
		ATK-025	1	ST	Site	BIA AA-12174
		ATK-002	5	T	Sea	Veltre 1979:206–208
	Salt	ATK-022	1	U	Site	BIA AA-12175
	Amlia	ATK-045	7	T, SR	Site	BIA survey
		SEG-004	2	ST	Site	BIA AA-12185
		SEG-008	16	ST, U, SR	Site	BIA AA-12189
		SEG-011	2	O, C	Sea	BIA AA-12190
		SEG-012	5	ST, SR, O	Site	BIA AA-12191
		SEG-013	6	ST, U	Site	BIA AA-12192
		SEG-019	4	ST, O, C	Site	BIA AA-12198
		SEG-020	7	SR, ST, O	Site	BIA AA-12199

Tribe	Island	Site	Min Count	Shape	Aspect	Source*
Akuuġun	Herbert	AMK-008	3	T	Site	BIA AA-12201
	Carlisle	AMK-003	4	ST, U, T	Site	BIA AA-12203
		SAM-017	7	T, O, SR	Site	BIA AA-12204
	Chuginadak	SAM-016	5	ST	Site	BIA AA-12208
	Uliaga	UMK-010	9	ST, O, C	Site	BIA AA-12210
		UMK-011	7	ST, O	Site	BIA AA-12211
	Kagamil	SAM-019	3	ST	Sea	BIA AA-12215
		UMK-009	2	U, O	Sea	BIA AA-12213
Qawalangin	Anangula	SAM-006	15	ST, T, SR	Site	Frohlich & Laughlin 2002:98–99
		SAM-027	2?	ST	Sea	Frohlich & Laughlin 2002:97
	Umnak	SAM-007?	11+	ST	Site?	Aigner & Veltre 1976:116
		SAM-009	17	ST, T	Site	Aigner & Veltre 1976:115
		SAM-010	?	?	?	Google Earth
		SAM-025	13+	ST, SR	Site	Hrdlička 1945:323
		SAM-040	6	T	Site	Aigner & Veltre 1976:115
		SAM-042	6	ST	?	Aigner & Veltre 1976:116
		SAM-043	15	ST, O	?	Aigner & Veltre 1976:115-116
		SAM-046	1	ST	Sea	Google Earth
		Chungsun	?	?	?	Aigner & Veltre 1976:117
		UMK-013	8	ST	Site	BIA AA-12218
		UMK-014	2	ST	Sea	BIA AA-12219
	Unalaska	UNL-003	1+	?	?	Knecht & Davis 2001:277
		UNL-025	7	C	--	BIA AA-12226
		UNL-027	2?	ST	Sea	BIA AA-12228
		UNL-032	5	ST	Site	Google Earth
		UNL-034	1+	ST	Site	Veltre et al. 1986:31–32
		facing UNL-034	3	ST	Site	Google Earth
		UNL-036	2	ST	Sea	Google Earth
		UNL-094	4	ST	Sea	Google Earth
		UNL-097	1	SR	?	Weyer 1929
		UNL-153	6	ST, SR	Sea	Gilbert et al. 1984
		UNL-171	4	ST	Sea	Gilbert et al. 1984
		UNL-173	10	ST	Sea	Gilbert et al. 1984
		UNL-177	4	ST	Site	Gilbert et al. 1984
		UNL-178	1	ST	Sea	Gilbert et al. 1984
		UNL-179	3	ST	Sea	Google Earth
		UNL-181	1?	ST	?	Gilbert et al. 1984
		UNL-313	4	T	Site	Gilbert et al. 1984
		UNL-568	15	ST	Sea	Gilbert et al. 1984
Qigiiġun	Unalaska	UNL-092	3	ST	Site	Knecht 2001
	Sedanka	UNL-108	1	C	--	BIA AA-12239A
	Peninsula	XCB-027	1	C		BIA AA-12270

Aspect refers to the apparent orientation of a burial feature relative to nearby cultural and topographic features. We reduced the local site configurations to a binary scheme: orientation toward a nearby habitation site or toward the sea. The statistic was expressed as the percentage of features facing the site (% site). Due to the proximity of burial mounds to a village in most cases, we assumed that the site occupants built the adjacent monuments. Presence or absence observations for trenches, summit pits, and summit moundlets were expressed in the same way (i.e., as a percentage of features with that attribute).

The study region naturally lent itself to a linear comparison, on a west-to-east transect that we interpolated as a straight line. Shape and size (area) attributes were analyzed by island segments. Whereas island group names as delineated on USGS maps (e.g., Delarofs, Andreanofs) were assigned somewhat arbitrarily in historic times or on the basis of geographic criteria, such as bracketing ocean passes, our approach relied on ethnohistory. At historic contact (ca. 1740s–1750s), and presumably from protohistoric times, Unangan apparently were organized into at least eight socioterritorial groups. These eighteenth-century regional groups have been reconstructed from ethnohistoric evidence, linguistic data, and inference (Bergsland 1994:xv; Black 1984:41–71).¹⁴

Leaving aside the possible outliers on Rat Island (RAT-081) and lower Alaska Peninsula (XCB-027), our data set involved five contiguous regional groups (Fig. 1). Proceeding from west-to-east: Naahmīgus occupied the Delarof Islands and adjacent Tanaga; Niiḡuḡis inhabited the Andreanof Islands but reportedly were divided at Adak Island into autonomous Kanaga-Adak (NiiḡuḡisA, including Kagalaska Island) and Atka-Amlia (NiiḡuḡisB) subgroups (Black 1984:55); Akuuḡun lived east of Amlia among the Islands of Four Mountains; Qawalangin occupied the western Fox Islands, including Umnak, tiny Samalga, and the west coast of Unalaska; and Qigiḡun inhabited northeast Unalaska and the Krenitzen Islands. Because only a handful of features were identified for Qigiḡun territory, they were included with Qawalangin. We looked at burial mound shape and size distributions for these ethnohistorically attested socioterritorial groups, recognizing that they occupied territories of different sizes, that territorial boundaries changed over time, and that survey coverage was incomplete or uneven across the study area.

RESULTS

As BIA archaeologists had perceived in the field, mean feature length for the whole sample ($n = 288$) increases west-to-east, but variability also increases significantly. Whereas size for the largest mounds in any segment increases along the transect, most features are small- and medium-sized. The majority of mounds in all segments have bounding trenches (56%), and just under half have summit pits (47%). At Anangula Village (SAM-006), Frohlich and Laughlin (2002:99) estimated that summit pits covered as much as 30% of the mound surfaces. Similar calculations were not performed for our data set due to inconsistent reporting of pit dimensions. Moundlets are rare overall (associated with less than 1% of burial features) but are more common in the western segments. This pattern could indicate relatively younger features with intact burial structures. Overall, it appears that burial mounds are more likely to face a habitation site than the sea (52% versus 48%), especially in the eastern segments (Akuuḡun 77%; Qawalangin 91%). Western sites, where more than half the mounds are oriented toward the sea, apparently deviate from the general pattern. In terms of area, substantial feature variability means that an overall average ($36 \pm 76 \text{ m}^2$) has little interpretive value. Even when shape is considered, the variances are large or sample size small. Fig. 4 illustrates the overall distribution by shape and size for 280 features from all geographic segments. Triangular mounds are most common in all size classes except the smallest. The three shapes occur together at only six sites (7%), whereas combinations of two shapes (usually triangular and oval) were observed at eighteen sites (21%).

TRIANGULAR

Mounds presenting the typic inverted V form constitute a robust subsample, about 60% of all features ($n = 170$). On the basis of shape, they would be considered *umqan* in the conventional archaeological terminology. However, features in the smallest size class (0–10 m^2) possibly are *ulaakan*. Our findings are summarized in Table 3. The Fox Island data derive largely from southwest Umnak, and we regret that only limited information is available for the concentration of *umqan* sites on southwest Unalaska (Fig. 1). Note also that this shape class probably occurs more often in the Naahmīgus segment (Delarof group) than our data show, judging by recent finds for Kavalga (XGI-061).

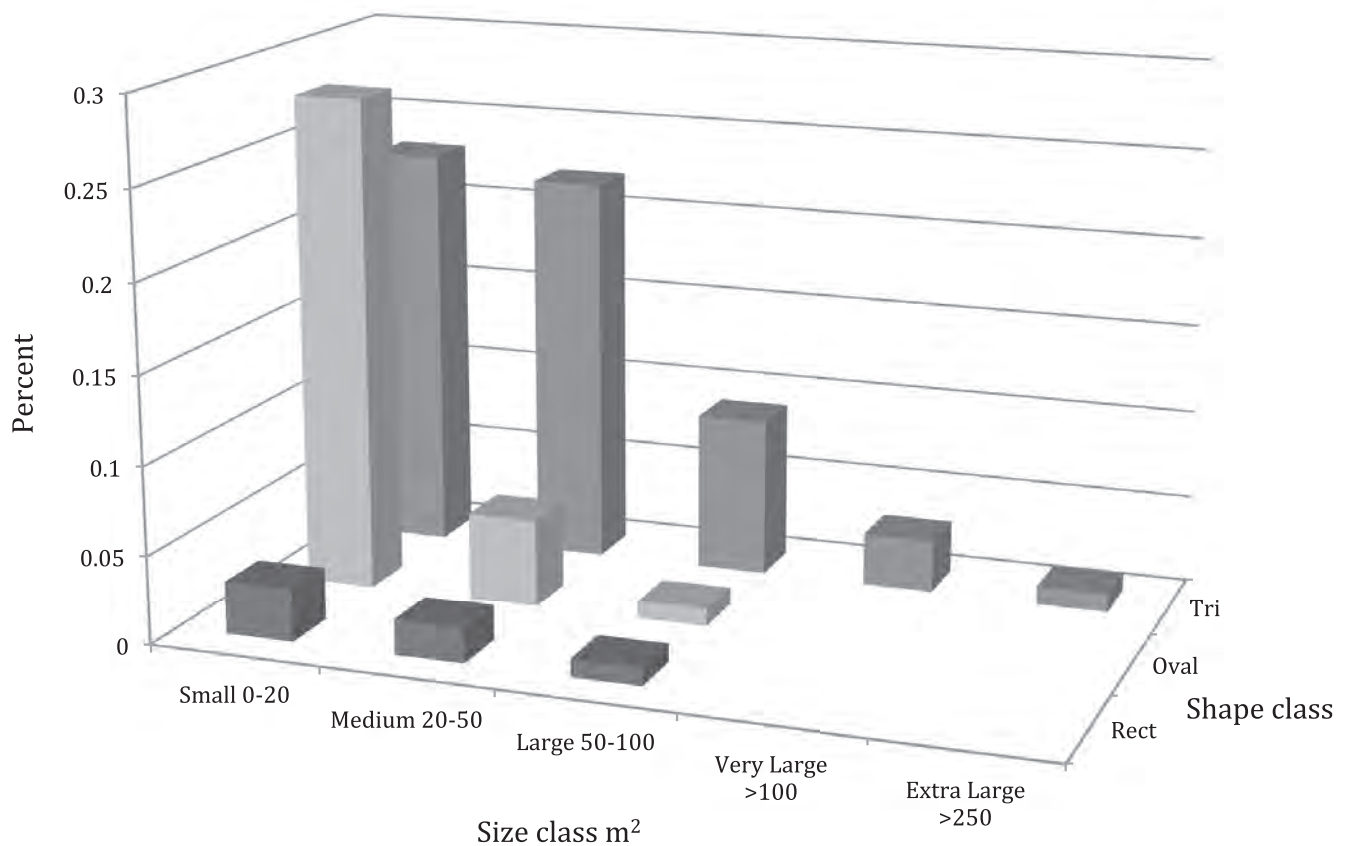


Figure 4. Size-shape distribution as a percentage of all features ($n = 280$); many of the smaller mounds probably are ulaakan.

Table 3. Triangular features.

Segment	Number of Sites	Number of Features	Length (m)	Length Range	Base (m)	Height (m)	Percentage of features with a trench	Percentage of features with summit pit	Percentage of features with summit moundlet	Percentage of features facing site
Naahmiġus	1	1	7.4		3.6	0.4	1	1	1	0
NiiġuġisA	11	28	7.2±2.9	2.5–14.2	4.5±1.5	0.8±0.4	.68	.46	.25	.46
NiiġuġisB	14	45	9.9±5.1	2.7–23.7	5.5±2.2	0.6±0.3	.66	.55	.24	.35
Akuuġun	8	27	13.6±5.2	5.4–27.0	9.1±3.5	1.1±0.4	.85	.55	.07	.74
Qawalangin	9	69	10.1±7.8	3.1–53.0	7.5±5.4	1±0.4	.68	.42	0	.92
Total	43	170	10.1±6.4							

Note: Data on Qawalangin include observations reported by Aigner and Veltre (1976:117).

and Skagul (XGI-015). Tanaga remains largely unexplored for burial mounds. In general, triangular mounds tend to be significantly larger than oval features in all geographic segments. While both shapes are common throughout the study area, features in the large size classes (greater than 50 m²) are overwhelmingly triangular in plan (80%). Typical features commonly have trenches (60%), and slightly less than half have summit pits (48%). Moundlets were observed primarily for the Niiġuġis segments. For NiiġuġisA they occurred only at features without obvious pits.

We charted the distribution of all triangular mounds ($n = 165$) by area on the west-to-east transect. While size does increase easterly, the correlation is weak ($r^2 = 0.0578$). Nevertheless, mounds in the larger size classes are noticeably absent from the Naahmiġus and NiiġuġisA segments. On average, mounds are largest for Akuuġun, but this finding may change if more data from southwest Unalaska (Qawalangin) was included. A few features

greater than 100 m² occur in NiiġuġisB and segments east. Fig. 5 shows the distribution of triangular features by 10 m² size classes for the five linear segments. Six conspicuous outliers exceeding 170 m² in the eastern segments represent Kagamil sites SAM-019 and UMK-009, the largest *umqax̂* at Anangula (SAM-006) and three superlative examples from UNL-313 on Unalaska. Wide chevron trenches associated with the large mounds make them visible on Google Earth imagery. Evidently, these were monuments to exceptional individuals and lineages or indicate places of special importance in the ancient Unangan world. Mound construction would have involved significant time and effort, especially if it incorporated pavements of manuports carried up from the beaches, as the Umnak excavations revealed. Features in the smallest size class are common in all segments except Naahmiġus and Akuuġun.

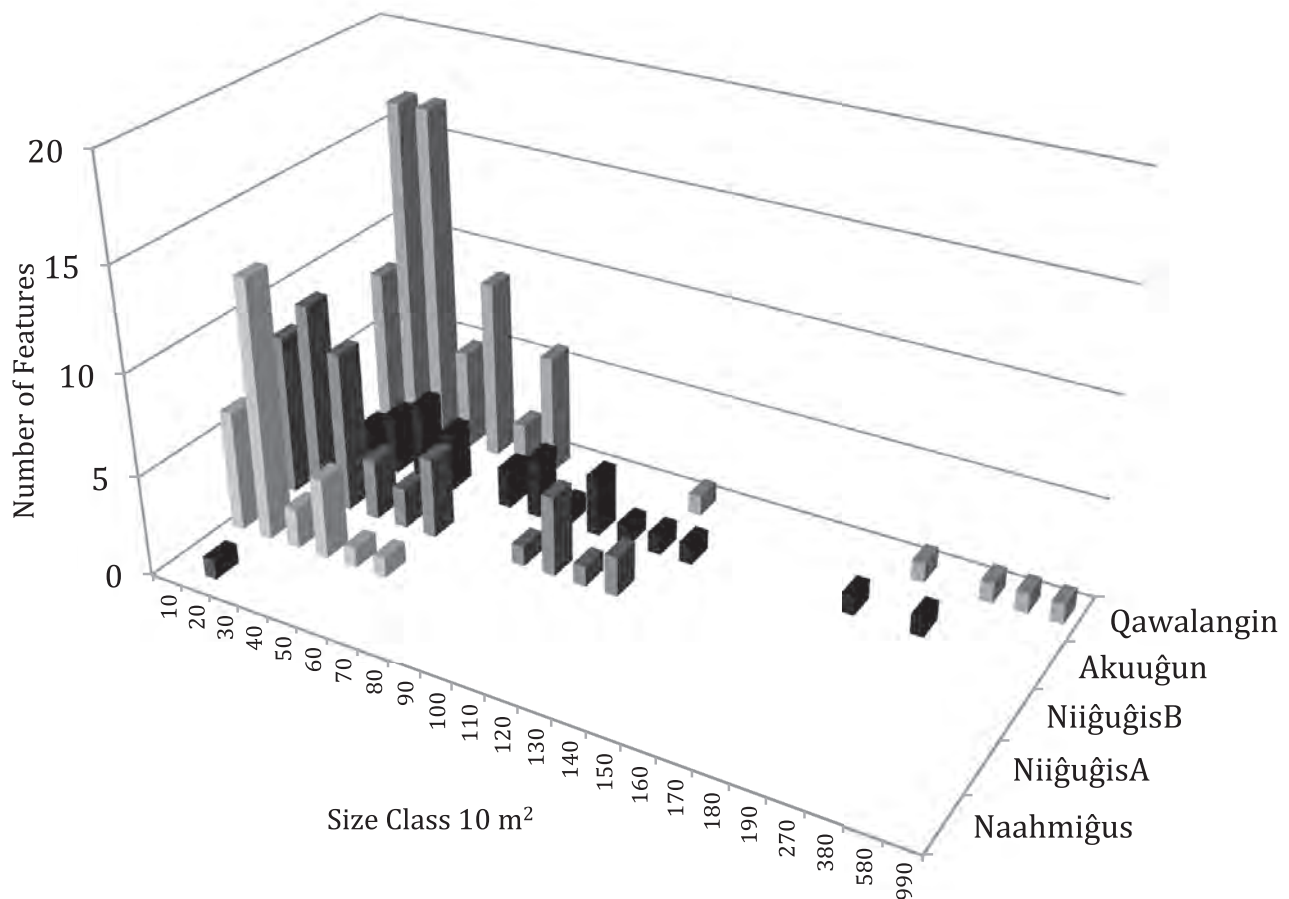


Figure 5. Frequency distribution for triangular mounds by 10 m² size class for linear segments; note class change after 190 m².

OVAL

This shape class includes 34% of all features in the pooled sample. Data are summarized in Table 4 and Fig. 6. Although some examples are quite large (e.g., a mound at SAM-017 was 12.5 x 8.3 m and 81.4 m²), ovals generally comprise the smaller size classes, including 72% of all burial features less than or equal to 5 m in length. Together with local triangular variants of similar size, many of the

smallest examples may be *ulaakan*. Geographically, oval mounds are most common in the NiiġuġisA segment, and secondarily NiiġuġisB and Naahmiġus, but they occur in all segments. If we assume that surface expressions of mounds become less angular over time due to weathering, vegetation growth, and loess accumulation, then some of the small- to medium-size oval features could represent degraded triangular or rectangular forms. More likely, oval mounds are a central Aleutian style.

Table 4. Oval features.

Segment	Sites	Count	Length	Range	Width	Height	%trench	%pit	%mdlet	%site
Naahmiġus	2	9	4.1±0.8	3–5.4	2.6±0.7	—	.66	.33	.11	0
NiiġuġisA	15	58	3.6±1.7	1.2–8.5	3±1.2	0.7±0.2	.60	.43	.01	.46
NiiġuġisB	8	12	3.7±1.8	1.5–8.8	2.7±0.9	0.6±0.2	.33	.66	.16	.41
Akuuġun	4	9	5.3±3.7	2–12.5	3.3±2.2	0.7±0.2	.33	.33	0	.89
Qawalangin	3	9	7.2±2.9	2.8–12	7.3±2.9	—	.22	.11	0	.89
Total	32	97	4.2±2.3							

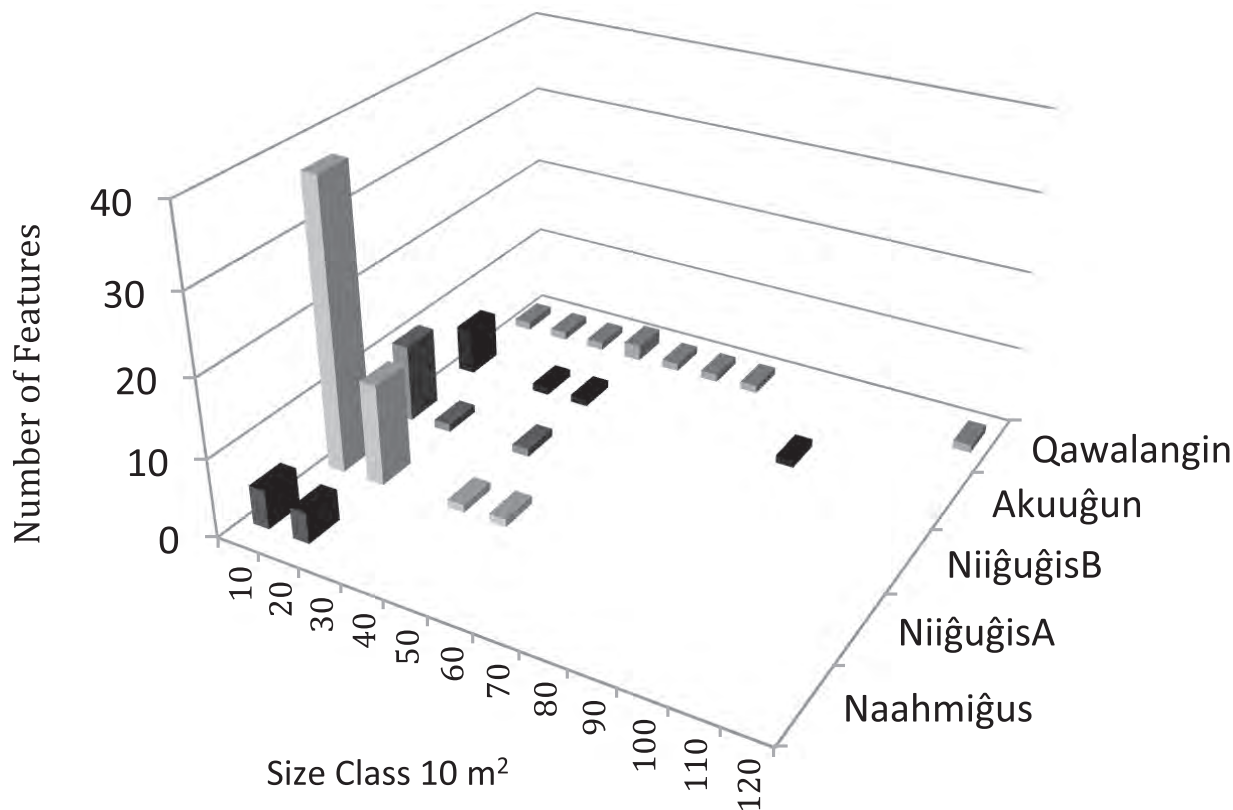


Figure 6. Frequency distribution for oval mounds by 10 m² size class for each segment. The large Qawalangin outlier is UNL-025.

RECTANGULAR

Rectangular mounds are relatively uncommon, comprising only 7% of the pooled sample (Table 5). Where present they tend to be greater than 7 m in length (63%) and account for 10% of all features in the large size classes (i.e., greater than 50 m²). They are most numerous in the Niiġuġis segments (74%), which also have the largest examples: ADK-126 (13.2 x 13 m); ADK-210 (11.6 x 6.4 m); and SEG-008 (14.5 x 5.5 m). Rectangles co-occur with triangular forms at seven of the ten Niiġuġis sites, suggesting they are variations on the same general design. In fact, 80% of all rectangles occur together with triangular mounds and about 40% of the time with oval features. This shape class may represent *umqan* variants on the model triangle.

DISCUSSION AND CONCLUSIONS

In summary, Unangan burial mounds have a wide distribution in a variety of shapes and sizes. The majority are triangular, and overall size is generally less than 50 m² (83%) or about 6.1 x 4.3 m. In nearly all cases mounds are located near a settlement site, commonly facing the village but often oriented toward the sea. While shape varies, features generally conform to descriptions based on the type sites on southwest Umnak: low mounds bounded by trenches and topped by small depressions marking the pit burials. On the west-to-east transect, mean size increases, but features in the small size range are usually abundant. The largest measured examples are in the Four Mountains group and on Unalaska, but features classed as large are present on most islands west of Tanaga. Whereas the 1991 BIA survey enlarged the distribution substantially, Fig. 1 conceals the coverage limitations, especially if we scale down to local island areas. Many sites that probably contain burial mounds remain unmapped or unexplored,

offering excellent potential for new discoveries and more refined analysis. As Aleutian archaeologists outline their future research agendas, we hope this paper highlights the importance of site-scale mapping, the utility of considering horizontal site structure surrounding excavation units, and the potential for recognizing near-surface cemetery components within or adjacent to habitation ruins.

Our attribute data roughly describe the variability of mound shape and size, but they do not allow us to differentiate between *ulaakan-qumnan* and *umqan* burial types. Returning to the terminology, *ulaakaġ* and *qumnaġ* are well-attested mortuary features. The former term designated a small inhumation pit covered by a conical driftwood or whale bone structure topped with sod. Our study ignored simple pits encountered at many sites that were also potential burials. By all accounts (e.g., Veniaminov 1984:196, 369–370), *ulaakan* were intended for lower ranked individuals. Related *qumnan* were well-crafted, above-ground or semisubterranean coffin boxes reserved for higher status individuals, although Jochelson understood the term as referring to any burial. We know this style from historic accounts (e.g., Merck 1980:177; Veniaminov 1984:196) and from Weyer’s (1929) excavation at Ship Rock. Both styles generally were built in designated (?) burial grounds set apart from habitation areas. And because both were capped by earth and sod, after several centuries exposed to the Aleutian environment the types cannot be distinguished reliably in the field. From our vantage well removed from aboriginal language and customs, it seems that either Unangan term could apply to relatively small burial mounds that are present in all shape classes. Common to both *ulaakaġ* and *qumnaġ* is the connotation of a diminutive or imitation dwelling for the dead. Their known range extends from the Rat Islands east to the lower Alaska Peninsula.

Table 5. Rectangular features.

Segment	Sites	Count	Length	Range	Width	Height	%trench	%pit	%mdlet	%site
Naahmiġus	1	1	5	—	1.9	0.3	1	1	0	1
NiiġuġisA	4	4	8.2	2.9–13.2	6	0.6	.50	.50	.50	.50
NiiġuġisB	6	10	7.4	3–14.5	3.9±1.2	0.4	.30	.90	0	.40
Akuuġun	1	2	12	10, 14	10, 11	0.8, 1.4	0	0	0	.50
Qawalangin	2	2	5.5	3.6, 7.5	3, 4	0.7	1	.05	0	.50
Total	14	19	7.7±3.6							

While there are insufficient data to suggest a temporal priority for either style, we suspect that *ulaakan* may be the more generic and possibly older burial form. *Ulaakan* appear to be unique to the Unangan region, whereas *qumnan* have close analogues to burial practices common to Native groups throughout southern and western Alaska (cf. de Laguna 1947:87–90). It is tempting to suggest that *qumnan* are associated with the Neo-Aleut horizon in the study area and resulting sociocultural transformations thought to have occurred after AD 1000–1250 (cf. Lantis 1970:216). Black (1987:37) considered burial customs to be very conservative cultural attributes, so substantial changes in mortuary treatment or interment should signal major cultural changes. Ethnohistoric accounts and limited excavations only indicate that *ulaakan-qumnan* burials date from protohistoric times and persisted into the early contact period. Writing in the 1820s–1830s, Veniaminov described *ulaakan* in the past tense, implying the practice was extinct by the early nineteenth century.

Archaeologists adopted the term *umqan* to designate relatively large triangular mounds first recognized and investigated on southwest Umnak (Black 1987:35). Their range is known to extend from at least the Delarof Islands to the Fox group, with undiscovered examples likely in the Krenitzen group. While *umqǎx* may be a misnomer (“a storage pit, like a freezer”), the term is now part of the conventional jargon. Typic *umqan*, as originally defined, are the most common mound form and certainly the most monumental, although our data show a continuum of size and co-occurrence with other shapes across the region. This suggests that triangular forms may have been the preferred shape among several possibilities. Consequently, the feature definition needs to accommodate that variability. At present, we are unable to posit a link between the preponderance of triangular features and Unangan ideology or iconography. We suppose that *umqan* are essentially earthen elaborations around core *ulaakan* or *qumnan* structures that served to emphasize status of the deceased or his lineage and to provide the mortal remains additional protection from the raw Aleutian climate. Excavations targeting so-called *umqan* features in the small-to-medium size classes indicate they contain pit-type burials that conform to ethnohistoric descriptions of *ulaakan*. Perhaps *ulaakan* is a better generic term for all burial mounds.

Since *umqan* rarely were built in isolation from settlements, at least according to present data, we assume

they were intended to be accessible to villagers, seemingly in contrast to remote burial caves. In several cases large *umqan* would have been visible well offshore from the settlement (e.g., ATK-045, SAM-006, UMK-011, UNL-092). According to Veniaminov’s (1984:221) account, Unangan generally believed that souls of the dead (“shadows”) had agency and “dwelled invisibly among their kinsmen, accompanying them on land and sea.” Living descendants called on them in times of danger and distress. At the same time, Veniaminov (1984:218) reported that near most settlements there was “some mound or *kekur* ([Russ.] an off-shore rock) or some outstanding feature, on a cliff, which were strictly prohibited to all women and young men.” Such prohibitions may have applied to *umqan* as well.

Unlike *qumnan* and simple *ulaakan*, which ethnohistoric sources differentiate according to the deceased’s social position, we might infer status based on the size and labor invested in *umqan* construction. Large features, situated close to settlements and visible from afar, evidently commemorated renowned individuals, advertising the wealth and prestige of the deceased, his lineage or the home settlement.¹⁵ In the excavated examples, burial pits containing multiple individuals of both sexes ranging in age from infant to adult suggest *umqan* may have been family or lineage plots within a larger community burial ground, unless some of the pits contain hapless grave escorts. Note however that many other individuals would have been interred in lateral house compartments, in simple *ulaakan*, and in rock crevices and caves. As reported by Frohlich and Laughlin (2002:103) for Anangula Village, truncation or superposition of pits and their presence in *umqan* trenches may indicate a long period of use for the features and burial grounds. Unique keyhole-shaped mounds (ATK-045, SAM-019) formed by attaching an earthen oval to the apex of a large triangular feature may be another indication of reuse or modification over time. But whereas new burials may have been added, as yet there is no good evidence the mounds themselves grew by accretion. Certainly, interment in an *umqan* context seems to imply elevated social status. On the other hand, we are struck by the limited number of grave goods recovered from the excavated *umqan*, relative to their monumental size (Table 1). By comparison, the apparent big man’s *qumnǎx* at Ship Rock contained a rich trove of funerary objects jammed into a 2 x 1.5 x 0.5 m box (Weyer 1929). Perhaps this indicates relative age for

the well-preserved Ship Rock burial and that outside of sheltered burial grottos and the buffering chemistry of shell-rich middens, skeletal remains and organic grave goods simply disintegrate in open-air Aleutian contexts.

Umqan appear to be an old burial form, and most excavated examples may be precontact in age. This is suggested by their apparent absence from ethnohistoric descriptions, except for the possible relationship to votive rock cairns (*anachxun* or *hadgun*). We noted already that freshly constructed mounds may have been paved with stones that became buried by sediment and organic material over time. At Korovinskii on Atka, *umqan* are demonstrably older than late protohistoric age based on tephra-chronology. The Neo-Aleut woman buried in *Umqan* 1 near Anangula Village suggests burial after ca. AD 1000, assuming the physical type is a reliable horizon marker (cf. Ousley and Jones 2010). All the Umnak *umqan* apparently are younger than 2,000–3,000 years, again based on the local tephra sequence. However, on Unalaska they may date earlier than 2,000 years, indicating that typical triangular mounds are an ancient, enduring Unangan tradition. If we accept the age estimates for Unalaska features at Makushin and Summer Bay, *umqan* appear to predate the advent of very large communal dwellings (and associated sociocultural complexity?), which appear in the twelfth century on the lower Alaska Peninsula and are found at late protohistoric settlements as far west as the Four Mountains group. Aigner and Veltre (1976:126) suggested that *umqan* construction declined in the early contact period and that pit or compartment burials inside dwellings became more prevalent. Historical links between *umqan* and so-called longhouses will be established only with improved inventory data for both feature types and with closer dating for the burial mounds.

Aigner and Veltre (1976:127) also suspected that *umqan* were “correlated negatively” with burial caves of approximately the same protohistoric age. This seems to be the case for many Aleutian sites. However, BIA surveys show that Unangan cave ossuaries or crevice burials co-occur with settlement sites on several islands, including Kavalga (XGI-009), Kanaga (ADK-210), Amlia (SEG-001), and Carlisle (SAM-017), and that *umqan* also are present at the sites. The limiting factor evidently was a suitable rock grotto (cf. Laughlin 1980:99). Spatial isolation of burial caves may not have restricted access as much as social controls and taboo enforcement of the sort Veniaminov described. On the other hand, known buri-

al caves and some *umqan* may have significantly different ages, if Knecht’s (2001; Knecht and Davis 2007:277) estimates for UNL-092 and UNL-313 are correct. The oldest cave burials at Kagamil (SAM-019) and Ship Rock (UNL-097) date from only the ninth through twelfth centuries AD. Bank (n.d.) obtained a potentially older date of cal 360 BC–AD 975 on wood from the so-called Mask Cave at SAM-019, but the standard deviation was very large (1660 ± 300 BP). Note, however, that older caves may be sealed by colluvium or pyroclastic deposits, lost to coastal erosion, or still await discovery. For the moment, these age estimates do not support the notion of a late prehistoric change in mortuary practices. Literature review and Aleutian site surveys suggest a variety of ways that Unangan shaped the landscapes in and around their villages by constructing substantial houses, *ulaakan-umqan* in adjacent burial grounds, mysterious sod circles (Veltre 1979:215–218), and votive rock cairns. Although socio-religious beliefs and practices that motivated development and construction of burial features are largely opaque from our vantage point, and associated Unangan terminology has become obscure, all such monuments retain significant historic, scientific, and cultural value. On site scales, we anticipate that new or refined patterns of surface remains at ancient villages will emerge to illuminate our understanding of long-term Unangan use and occupancy.

ENDNOTES

1. For example, wood and whalebone scaffolding, tiered burial platforms, boats and boat paraphernalia, skin garments, weapons and hunting equipment, slat armor and wood shields, wood dishes and household items, woven mats and baskets, skin bags.
2. Unangan singular nouns end in *-x̄* (e.g., *ulaakax̄*), plural nouns in *-n* (*ulaakan*). Italicized spellings follow the orthography developed by Bergsland (1994). Nearly all are in the Eastern dialect. Note that Unangan regional group and place names are not italicized.
3. Alaska Native regional corporations formed under provisions of the act could obtain title to heritage sites in their respective regions when the subject properties satisfied eligibility requirements modeled after regulations developed for the National Historic Preservation Act (1966). See Pratt (2009).
4. Box burials of the *qumnan* type described by Veniaminov and others, either partially buried or

raised on pedestals, were part of a common mortuary practice that prevailed in much of subarctic Alaska during late precontact and early contact times (mid- to late 1700s) (de Laguna 1947:87–90; cf. Lantis 1970:216). Early visitors reported very similar wood coffins from virtually all the tribes inhabiting the Gulf of Alaska, adjacent interior territories and the Bering Sea coasts. Box burials were described for the Tlingit at Lituya Bay by la Pérouse in 1786; at Port Mulgrave by William Beresford in 1789 and Alejandro Malaspina in 1791 (de Laguna 1972:540), by Frederic Litke (1987:96) in 1827 for the Northwest Coast, by the hieromonk Gedeon in 1804 for Kodiak Island Alutiit (Pierce 1978:131), for Tlingit and Koyukon–Deg Hit’an Athabascans in 1868 by Frederick Whymper (1966:78–79, 186–187, 199), by Johan Jacobsen (1977) in 1883 at Native villages scattered from southern Vancouver Island to the Yukon River, by Edward Nelson (1983:310–322) in 1877–1880 for Yupiit and Inupiat of the Yukon-Kuskokwim Delta and Bering–Chukchi Sea coasts, and by Whymper (1966:256) for Siberia. Box burials very similar to *qumnan* are known archaeologically from mummy caves and habitation sites of Chugach Alutiit in Prince William Sound (de Laguna 1956:97–99).

BIA investigations in the Yupiit homeland documented surface box burials persisting as a common burial form well into the 1940s. For example, Nunallerpak (AA-9373), near the mouth of Black River in the Yukon River delta, has many such graves dating from the 1920s–1940s (USBIA 1984). At nearby Qip’ngayagaq (AA-9883), one surface burial dates to 1982.

5. Veniaminov (1984:196) goes on to write: “However, as is evident even now on the basis of several signs, it seems that they sometimes buried the rich in caves also.”
6. Unless otherwise noted, radiocarbon ages were calibrated to 2 σ using CALIB 6.0 (Reimer et al. 2004; Stuiver and Reimer 1993).
7. Russian explorer Mikhail Malakhov (pers. comm. to O’Leary, 2013) recently suggested that triangular *umqan* might represent the steep, symmetric profile of stratovolcanoes, which on clear days dominate many Aleutian viewsheds. Interestingly, a tale narrated in 1910 by Isidor Solovyov described how a mythical ancestor enhanced the strength of his sons by “lifting up

the sides” of several volcanoes, pulling ribs “dripping with juices” from the demon chiefs within, and placing the wrapped bones behind his sons’ baidarka seats (Bergsland and Dirks 1990:164–167).

8. In Kamchatka, on the mainland beyond the westernmost Aleutian Islands, Stepan Krashennnikov (1972:30) reported the same type of mound in 1755: Five versts [ca. 5 km] from this town [Aunup-Chanuk, in Koryak country] is a small territory called Unkaliak (the evil stone spirit); the Koriaks say that this particular spirit lives there. Whoever passes this way for the first time must offer a pebble to the spirit or else they believe the devil will bring ill fortune to their journey; as they toss these stones one on top of the other, there is a considerable pile of them.
9. Black (1987:35) interpreted the features as “pit burials,” evidently ignoring the surrounding mounds.
10. Caroline Funk (pers. comm. to O’Leary, 2009) suggests using a rigid probe to test for the presence of stone pavement.
11. In 2008, BLM cadastral surveyors identified a triangular *umqan* just outside BIA site boundaries established in 1991 for a village (XGI-015) on Skagul Island, in the Delarof group. Surveillance by Google Earth indicated that other burial mounds may be present.
12. The season and time of day for the imagery were limiting factors. Lush vegetation at the height of the growth season, snow cover, high-angle sunlight, and gullied terrain near sites reduced the possibility for *umqan* detection along many segments, even for some verified sites. Consequently, only the largest or most fortuitously oriented features were visible. We were forced to conclude that easy-access remote sensing cannot yet substitute for aerial reconnaissance and ground-based surveys. On the other hand, present coverages can easily detect distinctive habitation features, such as large proto- and early historic communal longhouses in the Fox Islands, dated AD 1650–1800 or earlier, and comparable “nucleus-satellite” dwellings on the lower Alaska Peninsula, dating to 1500–1800, but which appeared as early as AD 1125–1250 (Maschner 1999:96–98; McCartney and Veltre 2002:258–259).
13. Frohlich and Laughlin’s (2002:99, 101) detailed feature plans and careful area calculations indicated that our approach underestimated size for Anangula triangular mounds by an average of 20%.

14. Warfare, Eastern Unangan dialect capture, changes in material culture, and certain physical traits have long indicated an east-to-west population drift during late protohistoric and early historic times (Berge 2010; Bergsland 1994:xxv; Bergsland and Dirks 1990; Chatters 1972; Laughlin and Aigner 1975:197; Leer 1991; Maschner and Reedy-Maschner 1998; Street 1994). Recent genetic, radiometric, and isotopic analyses on human remains from Fox Islands–Four Mountains burials indicate that a significant biological change originating from eastern sources (i.e., Kodiak and lower Alaska Peninsula) occurred after about AD 1000, possibly coinciding with increased social stratification and adoption of mummification and large communal dwellings (Coltrain et al. 2006:545; Smith et al. 2009). However, multivariate procedures integrating craniometric, genetic, and chronologic data indicate a very complex population history (Ousley and Jones 2010), and marked changes in mortuary practices in the study region have not been demonstrated.
15. Erica Hill called our attention to the importance of social structure for interpreting burial practices and to the potential for feature size variability to track the relative importance of lineages or the longevity of settlements, where larger *umqan* could indicate more prominent lines or longer occupations at a site. We have alluded to the latter possibilities but have not emphasized them for want of ethnohistorical support. Hill also wondered whether *umqǎ* structure could mirror the configuration and organization of the traditional communal dwelling. In the eighteenth century, inhabitants of a settlement (and probably nearby villages) were all related through interdigitating consanguineal and affinal relationships. Based on the well-developed avunculate, preferred marriage rules, and other traits, Lantis (1970:227–240) concluded that Unangan probably reckoned descent through the female line. Intricate plots of traditional tales repeatedly invoke the close relationship between a boy and his mother and her brothers, in opposition to his biological father and paternal relations (Bergsland and Dirks 1990). The ubiquity of interne-cine treachery and violence is striking. However, the matter remains unsettled because the ancient kinship system had been substantially altered well before 1900 (Bergsland 1994:576). One or more lineages would have occupied several large communal dwellings, each

house controlled by a lineage headman, and the whole settlement loosely administered by a lineage chief (*tukux̌*). Veniaminov (1984:241) characterized the patriarchs' authority as rather limited in most matters of daily life. Like other Alaska Native groups, individuals were expected to be self-reliant with respect to regular subsistence and household activities, yet there also was a premium on cooperative behavior, and nuclear families in fact would have been highly interdependent. Cross-cutting lineage relationships, or more likely amplifying them, was a social hierarchy of at least three classes: leadership elites or notables, commoners, and slaves (Veniaminov 1984:240–241). Slaves, typically foreign prisoners of war, may have been few in number. The elite class included descendants of the founding lineage of a settlement or island, together with individuals who demonstrated superior leadership skills, exceptional hunting abilities, bravery in war, etc. Composition and relative size of the middle class is unclear from fragmentary ethnohistoric sources. According to Lantis (1970:245), “the most plausible explanation is that there tended to be just one large wealthy kin group which was related to the chief (possibly a joint family or a true clan, for which there is some evidence) dominating each village.” Unfortunately for our analysis, house form and size evidently changed both through time and spatially along the island arch. Absent better dating for these transformations, it is impossible to relate them to variability in the poorly dated burial features. Nevertheless, it seems reasonable to suggest that the largest *umqan* (and the most elaborate cave burials?) might have been constructed for elite or the most revered headmen, or as suggested by Hill, a lineage founder or apical ancestor.

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FIELDWORK ON THE COMMANDER ISLANDS ALEUTS

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ABSTRACT

The group of Aleuts living on the Commander Islands has long attracted the interests of linguists, anthropologists, and ethnographers. The first party of Aleuts was taken from the Aleutian to the Commander Islands in 1825, and the last was delivered in 1872. The Aleuts lived in two separate groups on the Commanders, one on Bering Island and the other on Copper (Mednyi) Island. The Aleut settlement of Preobrazhenskii, on Copper Island, was in existence from the beginning of the 1860s. At the end of the nineteenth century, the Museum of Anthropology and Ethnography (MAE) began to gather individual objects and collections relating to the Aleuts of the Commander Islands that were brought in by participants of various naval, zoological, botanical, geological, and other expeditions. Until the end of the 1920s, no ethnographical studies of the Commander Island Aleuts had been undertaken. Employees of the MAE made a significant contribution to the study of the inhabitants of the Commander Islands.

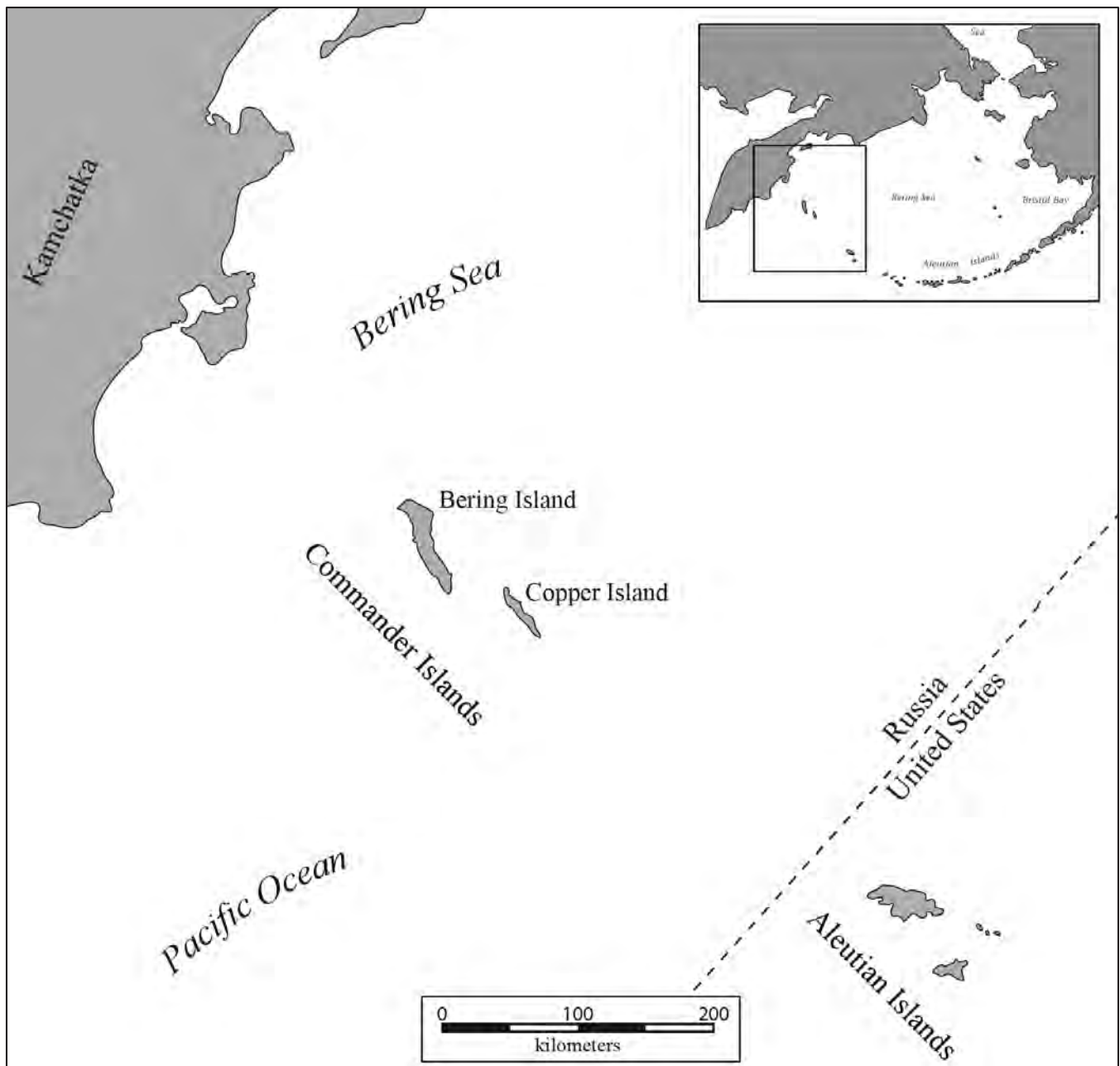
This article is dedicated both to the results of the scientific studies done among the Commander Island Aleuts as well as to the history of the MAE's collections on these "small people" of Siberia. Special attention is paid to the materials of the museum's employees and explorers, whose documents are now located in the MAE's archives (AMAE): S. Pandre, V. P. Khabarov, and E. P. Orlova. The article also mentions projects for the study of the Commander Island Aleuts that were never completed.

The first collections concerning the Commander Island Aleuts began arriving in the museum at the end of the nineteenth century. In 1890, Alexander Alexandrovich Bunge (1851–1930) explored the Arctic and contributed a model of a two-hatched baidarka (no. 2867–37). From 1887 to 1880, as part of the crew of the clipper *Razboinik*, Bunge explored the North Pacific Ocean and visited the Commander Islands.

Another original collection (MAE 1998) is that contributed by the Tsesarevich Nikolai Alexandrovich Romanov (1868–1918). The tsesarevich gave the collection to the museum in 1891, after he had undertaken a voyage to the Far East. It was expected that Nikolai would pay a visit to the Commander Islands during his trip. Though this never took place, the collection that the Aleuts had prepared for the tsesarevich was subsequently

sent to him as a gift. In 1896 it ended up in the MAE. Before that, from 1892 to 1893, the collection was in an exhibition of gifts presented to Nikolai Alexandrovich during his tour of the Far East. In that exhibition's catalog, the following Aleut objects are mentioned:

- 647. A baidar with eleven passengers [no. 313-47—S. K.]
- 648. Two single-hatched baidarkas
- 649. A baidarka with two passengers
- 650. A three-hatched baidarka
- 651. Skis and a stick
- 652. Examples of many kinds of hunting implements to hunt foxes, such as savage northern peoples have used from time immemorial
- 658. A Native dugout
- 659. A net for catching birds
- 660. War arrow



The Commander Islands. Map by Dale Slaughter.

- 663. Bag
- 664. Dance costume (from earlier times)
- 665. A parka made from birds
- 666. Native clothing and mittens
- 668. Aleut dance hat

At the time of the collection's formation, in 1890, the Commander Island Aleuts were heavily influenced by both Russian and American culture (in 1871 the island had been rented to an American trading company for twenty years). However, the Aleuts had maintained the ability to manufacture many objects of traditional culture, to which

the present collection attests. Altogether there are twenty-four entries in the collection, representing several dozen objects. There are models of baidarkas with figurines of hunters—one-hatched (no. 313-48/1-2), two-hatched (no. 313-49), and three-hatched (no. 313-50). There is also a model baidar—a large open boat with eleven hunter figurines (nos. 313-347). Also included are boats used to hunt whales and to transport women and children.

The original exhibition included a model of an Aleut underground hut, which shows traces of Russian influences. The traditional Aleut entrance hole in the roof

is replaced by a door through the side (no. 313-58). European influences can be seen in the construction of traps for catching foxes (nos. 313-52, -55, -56, -57) and in the children's clothing, which although made from animal intestines, does not resemble a *kamleika*, but rather a shirt with pants, boots, and gloves (nos. 313-66a, b, c, d). Siberian influence is easily seen in the skis and poles (nos. 313-51a, b, c).

Several objects relate to the production of traditional Aleut culture: a wicker basket (no. 313-53), a mesh for catching birds (no. 313-59), a harpoon for killing marine animals (no. 313-60), a model throwing board (no. 313-61), a net for catching birds (no. 313-62), a leather purse (no. 313-63), a parka made of bird skin (no. 313-64), two men's dance headdresses (nos. 313-68, -70), and a woman's cape-shawl (no. 313-69).

This list demonstrates that at the end of the nineteenth century the Aleuts had still maintained the material basis of their traditional culture. I. E. Veniaminov wrote about Aleut clothing:

The principal and essential clothing of an Aleut is the parka—a kind of long shirt that falls below the knees, with a standing collar and narrow sleeves. Parkas are now made from bird skins, above all puffins (sea parrots) or tufted puffins, and sometimes from *aras*; if these are unavailable, the parkas are made from seal skins. . . .

Parkas are irreplaceable for the Aleuts in this climate. While traveling, parkas serve as bedding and clothing, and it may be said, their house. With it Aleuts fear neither wind nor frost (Veniaminov 1840:v. II, 212).

Veniaminov also gives evidence concerning the ceremonial headwear of the type represented in nos. 313-68 and -70.

In earlier times a round hat was still used, made from seal skins, embroidered with reindeer fur, with a long braid of straps in the back, and with an embroidered tongue forward. These hats were only used for dances; today no one has any like them (Veniaminov 1840:v. II, 219).

This last quotation relates to the description of Aleut culture on Unalaska Island in the 1830s; however, on the Commander Islands ceremonial headgear was retained until the end of the nineteenth century.

G. A. Sarychev mentioned the use of the cape-shawl like object no. 313-69 in his description of Aleut dances on the Andreanof Islands, which he witnessed in 1790:

When the Aleutians began to sing, the dancer took in each hand a bladder, which he held so they would hang down to his elbows, and then began to dance, nodding and tossing his head to the sound of the drum; after which, throwing down the bladders, he took up the skin, and swung it aloft several times, as if to exhibit it to the company. He then threw the bladders down, and seizing an inflated seal skin, danced with it as before, holding its extremities in his hands; and finally, taking a stick, imitated the action of rowing a baidar (Sarychev 1952:202; translation modified from Sarychev 1806).

Models of two mats, counters, and throwing knuckle bones constitute parts of a traditional Aleut game (nos. 313-67a, b, c, d) that was played by four participants, two against two. The game was played on two marked-off squares, through which were drawn several lines. The players were supposed to throw the small knuckle bones into this space. Sometimes small mats with lines drawn on them were used. The competitors tried to knock the others' knuckles from the lines, replacing them with their own pieces. The pair who managed to place more knuckle bones on the lines were declared the winners. For their victory they received several small bone sticks or beads. Once one of the pairs had won three times the game was over.

In 1906, the Imperial Academy of Sciences received from the Geological Museum a bola that the Commander Islands Aleuts used for hunting birds. It had been given to the Geological Museum by zoologist Otto Alfred Fedorovich Gerz (1852–1905), who at the end of the nineteenth century had undertaken zoological explorations in the Commander Islands. In 1912 a model of a Commander Island baidarka (no. 1975) was received from the Kamchatka Medical Inspector Alexander Yulianovich Levitskii (born 1863).

In 1910, during a trip to the Amur, L. Ya. Shternberg visited the N. I. Grodekov Khabarovsk Local History Museum and established a professional association with the museum director, V. K. Arsenev. Over the course of many years the MAE received a valuable collection of Siberian ethnography from Khabarovsk. In 1915 the museum's curator, M. Venediktov, sent the MAE three model baidarkas from the Commander Islands (no. 2442). In 1927 the museum received two Commander Island Aleut *kamleikas* from O. D. Nilova, objects which had belonged to Admiral K. D. Nilov at the end of the twentieth century (no. 3483).

In addition to its collection of objects, the MAE has a small illustrated collection consisting of twelve group

photos of Aleuts from the village of Preobrazhenskoe, on Copper Island (no. 4566). These photographs were taken at the end of the nineteenth or the beginning of the twentieth century. In several photographs the Aleuts are shown wearing caps with the inscription "Copper Island" along the band. Before the Revolution, all Aleuts who reached twenty years old were enlisted into protecting fur-seal colonies. They wore a naval uniform consisting of pants, jacket, and a cap bearing the inscription "Copper Island" or "Bering Island."

Thus, until the 1920s, research on the Commander Island Aleuts was limited to the collection of several small ethnographic collections and short descriptions of the Aleuts in the travel journals of sailors, government officials, zoologists, botanists, and other researchers who visited the islands. The first to call for real scientific study of the Commander Island population was the American anthropologist Aleš Hrdlička (1869–1843). Hrdlička was interested in the question of the peopling of America. He thought that in prehistoric times there were two routes by which humans reached America. One of them was located in the Bering Strait, and the other stretched from Kamchatka across the Commander and Aleutian Islands—at a time when they formed an isthmus connecting Asia and America. In order to prove his theory, Hrdlička needed to undertake archaeological and anthropological research in the Commanders.

The XXIII International Congress of Americanists took place New York City in September 1928. Professor W.G. Bogoras, a member of the MAE, took part in the congress. After the congress concluded, Bogoras participated in an international meeting for the study of Arctic peoples, a meeting also attended by K. Wissler from the American Museum of Natural History (New York), A. Hrdlička from the Smithsonian Institution, the Canadian ethnologist D. Jenness, E. Nordenskiöld from Sweden, and three Danes: W. Thalbitzer, K. Birket-Smith, and T. Matthiason. At the meeting the men agreed on the necessity of organizing ethnographic expeditions to unexplored parts of Siberia and that the American museums were prepared to finance such expeditions. W.G. Bogoras spoke out against an American expedition to study Siberian peoples. He claimed that Soviet scientists possessed the means to conduct their own expeditions. Subsequently, A. Hrdlička established professional correspondence with archaeologists and anthropologists from Moscow, Leningrad, and Irkutsk.

The first Aleut to receive higher education (partly in anthropology) was Valentin Polikarpovich Khabarov. At the end of 1925, the Northern Branch of the Workers' (Preparatory) Faculty of Leningrad State University was founded. Twenty-four students enrolled, eighteen of whom were native Siberians, among them V.P. Khabarov. Both L.Ya. Shternberg and W.G. Bogoras taught in the Northern Branch. In 1927, the students of the Northern Branch were transferred to the Northern Faculty of the Leningrad Eastern Institute, and in 1925 the Institute for the Peoples of the North (IPN) was created on its basis. During the time of his study, Khabarov was one of the most active students. In March 1928, he took part in the work of the Fifth Plenum of the North at the All Union Central Executive Committee in Moscow. There he was chosen as a member of the editorial board of the magazine *Taiga and Tundra*. Bogoras became editor of the periodical, and his assistant, Ya.P. Koshkin, later became rector of the IPS. In 1931 the first fifteen students graduated from the IPS, among them Khabarov and his Khanty wife, Militsa Khabarova. In 1931, Khabarov published an article entitled "The Commander Islands" in the third issue of *Taiga and Tundra*, which also contained Militsa's notes "A School on the Commander Islands" (Khabarova 1931).

V.P. Khabarov wrote:

Bering Island has only one inhabited place, the village Nikolskoe, with a population of 179 people. Copper Island also has only one inhabited place—the village Preobrazhenskoe, with a total population of 153 people. The Russian population (the financial administration) does not exceed 15 on both islands.

The human population on the Commander Islands is less than 350 people, if one counts the permanent as well as temporary residents—the financial administration. Until the end of the last century the population grew naturally, and the number of inhabitants reached 605 by 1910. Thereafter they began to die out.

The average lifespan, as a result of poor climatic and living conditions, is extremely low—22 years on both islands.

The peoples' economy there is based on hunting marine mammals: sea otters, fur seals, and blue foxes. The peoples' well-being depends on the harvest of these species. The fur trade declines from

year to year... Women do nothing except domestic labor, and the men work in the fur trade or defend the island's fur-resources for a salary, recently divided into three categories. Outside of the fur business, the population receives no income (Khabarov 1931:54–55).

Khabarov's information in this article comes from 1927, when he and his wife did summer internships on Bering Island.

At that same time, the doctor S. Pandre, from Khabarovsk, composed a report on Bering Island from 1930–1932 (Archive of the Museum of Anthropology and Ethnography, f. 23, op. 1, no. 27, p. 15). This document contains no ethnographical observations but does depict the general socioeconomic and demographic situation of the Aleuts. According to the report, at the beginning of the 1930s the Aleuts experienced a deep demographic decline and practically died out.

According to statistical information from the Commander Islands, the population of Bering and Copper Island in 1911 numbered 640.

On January 1, 1930, the population of the islands was determined to be 300 people, as soon after my arrival on the Commander Islands in April, 1930, I was presented with the question of explaining the reasons for the decline of the population by 50% in 20 years.

I undertook thorough investigations of the Aleuts' health on Bering Island. I only found the medics' notes on the reasons for mortality in 1925. From research on the Bering Island Aleuts it was clear that their principal malady was tuberculosis, principally in the lungs, which accounted for 25%....

What accounts for such a high rate of infection and death from tuberculosis? There are many factors: 1. living conditions, 2. every-day life, 3. alcoholism, 4. incest, 5. food, 6. climatic conditions.

I will sum up each of the factors listed.

Living conditions. From archival documents dating 1877–1899, and 1905–1906, in Doctor Malinovsky's report, it can be seen that "the huts were of the American sort, appropriate for a country where oranges grow." From the reports of representatives of *Dalryba* (Far Eastern Fish) on the Commander Islands it is clear that before Soviet organizations leased the islands, these houses belonged to the Aleuts, went entirely un-renovated, and every year became more dilapidated. Yes, and in the first years of the Soviet organizations *Dalgostorg*

(Far Eastern State Trading) and *Dalryba*, wooden building material was brought there only to serve the needs of the hunters and were not given to the Aleuts to fix their houses.

Therefore, in the course of several decades, the people have lived in damp, cold houses, and waste much of their energy on heating themselves....

Everyday life. Aleuts live happily in families, they treat their sick very tenderly, and they are afraid of leaving them by themselves. When conducting sanitary disposal it is necessary to move carefully around the sick person and others....

Alcoholism. In all the archives, in E. K. Suvorov's book, there is evidence of alcoholism among the Aleut. Of course, alcoholism has not ended even today. No educational work in the form of conversations about the evils of alcoholism, not even a demonstration of a well-made, popular film, has led to the desired result. Perhaps the production of moonshine has somewhat diminished, but alcoholism has been impossible to eradicate, and probably will be for several decades, despite such attempts at punishment such as forced labor, fines, and withholding of sugar rations for two months. It seems to me, that in the first month after the establishment of a People's Court, the Aleuts distilled and drank more frequently....

Incest. From the genealogies I have of the inhabitants of Bering Island it is clear that all are related to each other. If these people were healthy, then perhaps by the laws of genetics no degeneration would result from in-breeding. But, given their weak physical development, this incest from generation to generation is one of the reasons for Commander Island Aleuts dying out....

Food. One cannot say that on Bering Island, that food is bad, taking into account of course the local products: wild game, dried fish, salted fish, plus the rations distributed to the stations. From 1930 to 1931 there was not enough fat and vegetables had been absent for the last three years. In that year not even a single kilogram of potatoes was delivered. Only two kilograms of dried vegetables per family (15 grams per person) are distributed each year, and 30–31 grams to a half kilogram of onions. It is clear, of course, that the three year absence of vegetable rations has had a major impact on food supply....

Climatic conditions. As I said above when describing the working conditions of the fur hunters, the conditions are difficult. There is continuous dampness, strong winds, a small number of sunny

days on Bering Island, and almost no sunny days at all on Copper Island.... (AMAE n.d.: f. 23, op. 1, no. 27, l. 15).

As a result of the dedicated work of the physician S. Pandre and her successors, the Commander Island population stabilized in the 1930s and began to slowly recover.

Upon returning to Bering Island in 1931, V.P. Khabarov received administrative posts in the local government. His book *The Fur Seal Industry on the Commander Islands* appeared in 1941 (Khabarov 1941). Khabarov maintained official ties with his co-workers in the Siberian Department of the MAE. They convinced him to write articles about the Aleuts, probably for the collection *Peoples of Siberia*, which was readied for printing at the end of the 1930s. Khabarov contributed an essay entitled "Aleuts." Below are several quotations from the work, which relate to the description of Aleut culture on the Commander Islands (AMAE, f. K-V, op. 1, no. 106).

The inhabitants of the Aleutian Islands had numerous local names.... Atkhinity—Niggugim (presently Beringovtsy)....

On the other hand, Aleuts of the Attu Islands called themselves Unangan—that is, in the back of the Alaskan peninsula. It must be said, that the word Unangan should be understood in two ways and indivisibly. Better said, the first of these [probably the inhabitants of the Alaska peninsula—S.K.] (Attuans) called themselves Unangan for military success, in order to succeed in war. Later the Attuans themselves started to call themselves Unangan. Besides this, the word Unangan expresses the pride of the Aleuts tied to the aggression and fortune needed to attack the enemy suddenly. That is where the name Unangan (today Copper Islanders) comes from (AMAE n.d.: f. K-V, op. 1, no. 106, l. 1–2).

According to data from the Aleutian Executive Committee, on January 1, 1938, the number of Aleuts living in the USSR included 155 men and 148 women.... The Bering Islanders call their island Tanamash, which means "our land." They call Copper Island Ikun Tangakh, which means "sea rock." The Copper Islanders call Bering Island Ikun Tanak—visible land, and they call their island (Copper)—Tanamakh, which means "our land" (AMAE n.d.: f. K-V, op. 1, no. 106, l. 3).

The Commander Island Aleuts build their underground dwellings differently. The pit is no more than half a meter deep, the openings in the roof (*ulyugikh*) served

exclusively as a chimney. In order to enter and exit the dwelling a door (*kamegikh*) was made in the wall. Inside the walls were bunks for sleeping. A stone fireplace was located in the corner and outfitted so that one could cook bread in it. In the 1870s, these dwellings were replaced by planned houses built by the Hutchinson Co. Aleuts lived as separate families in these dwellings. They were heated by charcoal or hot water that was carried in. Their internal furnishings were benches, tables, shelves, etc., the same as in Russian houses in Kamchatka. Their utensils are all purchased. The national costume of the Commander Islands has been maintained only by the hunters: waterproof boots (*ulegikh*) and jackets. The rest have been replaced by imported European styles.

Marine animals, both hunted and fished, played a large role in the Aleut diet. The meat of marine animals, birds, and fish was boiled. Sometimes the meat was eaten raw, for example the liver and kidneys of seals and sea lions and several fish, including halibut, greenling, sculpins, the heads and gills of cod, and greenling liver. Coho salmon and sockeye and humpback salmon heads are also eaten raw. Octopus is boiled for food, but some of it is eaten raw. Besides this, Aleuts gathered sea urchin and other mollusks raw. The main food sources were fur seal meat, cod, pike-perch (*sudachok*), and sockeye salmon. Their meat was salted down in boxes for winter. Food from cod and from salmon is also dried (*iukola*) and packed into boxes or into sea-lion stomachs. Food from marine mammal meat (sea lions and seals) is packed raw into seal or fur-seal stomachs. Salted fur-seal flippers are only eaten raw with cod or salmon *iukola*.

Aleuts use a lot of tobacco. Both men and women smoke. The majority of men also prefer to chew tobacco, a habit adopted from the Americans. Previously American and Russian tobacco was used, but now Russian naval *makhorka* (low-quality tobacco) is smoked. Aleuts used to chew "Kentucky," "Cherkass," or "Manchurian" leafed tobacco, but now that they no longer have access to this, they chew *makhorka*. In order to prepare tobacco to be chewed it is moistened with water, sprinkled with a little salt, and then mixed with charcoal. The tobacco leaves are rolled into a pipe like stuffed cabbage and then put in a small box well made for that purpose, constructed either of wood or from a cow horn. This box is called a *tabakerka*. Snuff tobacco has disappeared (AMAE n.d.: f. K-V, op. 1, no. 106, l. 18–20).

Aleuts were animist-shamanists. According to their ideas, the whole world was populated with spirits. Several spirits had particular meaning in their religion: The spirits of people and of the animals they hunted—seal spirits and cod spirits, waterkeeper spirits, cliff spirits, and the spirits of things hostile to humans. Plots, drawings, and talismans were widespread. The shamans' functions were to intercede with the spirits to ensure success in hunting and in the struggle with spirits who had kidnapped a human soul, or with spirits possessing people...

The principal subjects of the Aleut's tales were the deeds of ancestors, stories about the travels and adventures of heroes, and visits from inhabitants of other places, such as giants (*agligikh*), dwarves (*chalkakakh*), and various animal spirits. The raven was the hero of many myths. Humorous stories about bad hunters occupied a large place in Aleut folklore. Aleuts had several forms of song: shamanistic, playful, epic, lyrical, and others. The influence of Christianity has left a mark on folklore. Together with various myths about the raven, *agligikh* and *chalkakakh*, the origin of hunted animals, and the adventures of heroes, there have appeared tales about the creation of the heavens (*agokekh*), the evil spirit (*inunannakh*), and his assistant (*chugugorokh*), etc.

Miniature figures, carved from wood, bones, and ivory, and painted (with blood and bile from animals and variously colored clays), form part of the Aleuts' visual arts. Tattooing and face painting are also practices. Dances (*kagaiugikh*) with painted masks showing heroes, animals (seals and codfish), and spirits had religious meaning" (AMAE n.d.: f. K-V, op. 1, no. 106, l. 23–25).

In the notes to his article, Khabarov reported that in 1930 he was in correspondence with Waldemar Jochelson, and that "Kugam Ikgana (Damned Old Woman) and Kagliagumuzakh (Raven-Little Raven) and others helped contribute materials on language, and currently preserve tales and legends in the Aleut language" (AMAE n.d.: f. K-V, op. 1, no. 106, l. 41). Today, the location of the folkloric texts written by Khabarov in 1939 is unknown (Sangi 1985:395). In 1939 an article about Khabarov and other graduates of the Leningrad Institute of the Peoples of the North, entitled "Lomonosovs of Our Day," was published in the journal *Pravda*.

In 1937 and 1938 Aleš Hrdlička twice visited the Commander Islands. In 1937 his stay only lasted two days

(Hrdlička 1945:277–287). Hrdlička managed to undertake real archaeological explorations in August 1938, when the student W. S. Laughlin traveled with his crew (Harper 2002:10). Hrdlička examined the coastal cliffs of Bering and Copper Islands and middens along the slopes of the hills and the stream banks, and made several test pits. The results of his research were negative—he uncovered no traces of prehistoric human presence in the Commander Islands (Hrdlička, 1945:381–397).

In the summer of 1939 Hrdlička once again came to the Soviet Union. In June he visited the MAE, bringing to the museum library several of his works and presenting an essay on anthropological research in the United States. Hrdlička and Maria Vasilevna Stepanova (1901–1946) of the museum's America department established a productive working relationship. Under Hrdlička's influence, Stepanova planned to take part in an expedition to the Commander Islands. At the MAE, Hrdlička took part in a special meeting with Soviet specialists in the archaeology and ethnography of Siberia and America. As one of its results, the leadership of the Academy of Sciences planned a conference for October 1942, dedicated to the 450th anniversary of the discovery of America. However, the Second World War (1941–1945) ruined these plans.

In the 1940s Stepanova worked on her dissertation, "Native Inhabitants of Russian America in the Eighteenth and Nineteenth Centuries." However, she died in December 1946 at the age of forty-five. In Stepanova's eulogy, E. E. Blomquist wrote,

Her PhD dissertation was already near completion before Maria Vasilevna had the opportunity to travel to the Commander Islands. She had already begun to prepare for an in-depth study of the Commander Island Aleuts, when her early death cut short her tireless work. A thoughtful, serious researcher has been taken from us, a person with great creative plans and possibilities. The beginnings of her work promised to uncover much in her little-known field, and would have enriched Soviet science with valuable research (Blomquist 1947:215).

As a result of her death, Stepanova and Hrdlička's plans to conduct additional research on the Commander Islands were never realized.

In 1949, Elizveta Porfirevna Orlova (1899–1976) became a nonstaff member of the MAE. From 1930 to 1935, she

worked in the Russian Far East, teaching literacy to the Native peoples of Siberia. In 1932, Orlova prepared a primer for the Aleut language which, however, was not published. Today, only one copy of this primer is kept in the Institute of the History of Russian Literature (Pushkin House) [verbal communication with E. V. Golovko].

In 1949, E. P. Orlova found permanent employment at the MAE. In May 1861, she moved to Novosibirsk and began working in the Institute of the Economy and Organization of Industrial Production in the Siberian Branch of the Academy of Sciences. From July 14, 1961, until December 27 of that year she participated in an expedition studying the Itelmen, Koryaks, Evens, and Aleuts. She spent more than a month on the Commander Islands, from August to September 1961. Orlova (1962) published an article stemming from her research amongst the Aleuts. In the MAE archives there are also several variants of other articles that Orlova had planned to publish. She wrote:

In 1961 I found out from the Aleuts, that for collective hunting they had earlier used a large baidar rowed by twelve men, called an *ulukhtakh*. The *ulikhtakh* had a double leather lining, composed of 6 to 12 sea-lion skins. The women came together on the street to sew the lining together. Several old women took part in sewing the covers for the baidars. They remember well the unparalleled seaworthiness of the baidar *ekiakh*, which had one hatch, in which the hunter commonly sailed alone to sea. Baidars with two hatches were built to train twelve-year-old young men to hunt at sea. The framework “grid” was made from light pieces of driftwood, which had come from the American shore. To cover a one-hatched baidar required two large sea-lion skins. The baidar hatches are supplied with a special waistband-cover “togo,” whose width is from 40 to 50 centimeters, sewn from sea-lion skin and attached to the rim of the hatch with a strip of whale baleen. The baidars went out of use in the first quarter of the twentieth century. They were replaced by whaleboats, motorized boats, and other motorized craft.

From the skins of sea birds—puffins and tufted puffins—the Aleuts sewed warm and light parkas without slits in the front, and hats. When going to sea, on top of these warm parkas they wore *kamleikas* with hoods, stitched with sea-lion intestines. From the Aleuts E. I. and A. I. Badaev, I learned that when going to sea during inclement weather, on top of the sea-otter kamleika they put on another hooded kamleika stitched from the skin

from fur-seal throats for boot tops, seal skin for the front, and sea lion skins for the soles. On their head they wore wooden hats with a bill stretched out in front for protection against wind and sea spray. Set in a baidarka with such an outfit, the hunter was strapped in below the armpits with a waistband called a “togo,” a tightly tied restraint made of whale sinew, which helped him remain completely dry. With this kind of clothing, the Aleuts fearlessly went out to sea in rain, wind, and even in storms.

The Badaevs related how from one large sea lion intestine two adult kamleikas could be sewn. From 50 fur-seal throats they sewed one kamleika, and from 38 throats they sewed men’s pants, gloves, and a hood. With careful handling, a kamleika could be used for 3 to 4, and sometimes even for 5 years, while remaining entirely waterproof. There were special craftsmen to tighten up the hood and sleeves so that no water could leak in. “Your finger could freely go down the hood and sleeves and no water would get in, not even if it got directly in the water”—added E. I. Badaeva. With baidarkas outfitted like this they paddled to Bering Island, to Kamchatka, and even to Attu Island.

Today, the colon, bladder, stomach, and throat of marine mammals are thrown away, while previously these were crucial materials for making hunting clothing, shoes, and utensils, which frequently were not inferior in quality to articles produced in factories.

In the past the Aleuts mainly fed themselves with the meat and fat of marine animals—fur seals, sea lions, seals, walruses, and whales; fresh and dried fish; and bird meats and eggs (from geese, ducks, gulls, *aras*, loons, puffins, and tufted puffins). Hundreds and even thousands of these eggs provided for the entire year. All manner of mollusks and “caviar”—the ovaries of sea urchins—was also available in large quantities. The word *agukh agakhmal*, which indicated high tide, is translated as “sea urchin birth,” and low tide—*agukh chigdul*—is “sea urchin death.” Today they still prefer the same food, and to this day sea urchin “caviar” is considered a delicacy. Seaweed and sea kelp, which abound along the seashore, were and still are used as food, though not as much as previously. The Aleuts still collect and eat wild plants, especially the leaves of the wild onion, as well as wild garlic and sarana root. However, none of these are eaten as frequently as before. Berries still form part of the diet, including the honeysuckle, crowberry, and rowanberry. Nature has generously endowed the Commander Islands with edible products, however

every year the importance of imported, prepared foods rises, including flour, cereals, sugar, candy, tea, butter, oil, and all kinds of canned food, etc.

On the Commander Islands there are six national songs, which the Aleuts sing in their Native language, namely: *Agitadam* ("Comrade")—the most beloved song, which is about a friend who drowned in the sea; *Yagnanasim askhinuis* ("A successful hunt for women"); *Kikhyakhchis malgadulas* ("Singing songs and crying"); *Itan, ikh* ("First"); *Sulkhayakhtas* ("Deceiver"); and *Ukogom yaman, ayu* ("I can hardly wait"). The song *Agitadam*, performed by the Aleut P.F. Volokitin, was recorded on magnetic tape. Volokitin was my teacher at the Far Eastern Technical College for Peoples of Siberia and a participant in the linguistic brigade. Under my direction, from 1931 to 1932, he wrote the first Aleut primer, *Agadgikh khan, akikh* ("Sunrise"), which was approved for printing by the *Uchpedgiz* (Teacher's Pedagogical Printing House), but was unfortunately not published.

In the 1940s the Commander Islands Aleuts often practiced five different dances, some of which are still performed. They included "Balances," the Quadrille, "Q and Reverse Q"—"the longest and most beautiful dance" in their estimation. These dances, without a doubt, were borrowed from the Russian hunters and officials, however several alterations were made to suit the national taste. Two have been preserved that are definitely Native—the dramatic dances *Tulukidakh* and *Kagadugekh*. The latter dance depicts the life of a hunter from his early youth until old age. It is performed in Native dress. The men perform in *kamleikas*, boots made of seal skin with black tops and white soles made of sea lions, wooden hats, and hold spears and arrows in their hands. The women are dressed in parkas and hats sewn from puffin and tufted puffin skins, or in double-breasted jackets sewn from fish skin. On their legs they wear boots with black tops and white soles. For the dance *Tulukidakh* the men came out into the center of a large room and began to play on the drums, beating them with their hands—no drumsticks were ever used. The drums were small and round with pendants or bells. The dance depicted various scenes of hunting marine animals. The women sat to the right of the exit and clapped to the beat of the drums while shouting: *Hee-hee, ha-ha! Hee-hee, ha ha!*

From 1945–46, these dances began to be performed in different clothes. The men danced in all black, with a suit and tie, although they certainly needed white shirts. The women, all as one, wore

black skirts and white blouses, boots with black tops, white soles, and white tied belts. The Aleuts thought it very beautiful that there was no hard banging on the floor, but only the soft shuffling of the soft leather soles. Men and women always danced in pairs; unmatched people were never allowed into the game or dance circle, but had to sit at the wall.

In recent years the Aleuts have begun to forget their dances, and are even ashamed to perform them. The young people much prefer to dance modern ballroom dances. The only native game that has been preserved is the adult game of accuracy, called *kakan, is*—"stones." "Stones" was always played with the bones of the sea cow (there were six of them, though one was made of copper). In the event that one wins in the middle of "stones," the copper "stone" was thrown, and the winner cried: *Kudakh!*—"I won." *Kakan, is* was usually played at home during bad weather. On the walls of the most distant dwellings, a pillow was placed on the floor a depression was made in it, and "stones" were thrown at it from the other side of the room. The stones were supposed to land on the depression made in the pillow (AMAE, f. 23, op. 1, l. 28–30).

In 1952, Rosa Gavrilovna Liapunova (1928–1992) began working at the MAE. She began her work by studying the museum's Aleut collection. In the 1970s and 1980s she undertook additional research amongst the Aleuts of the Commander Islands. Liapunova joined the Institute of Ethnography of the Soviet Union's Academy of Science's (Moscow) Permanent Northern Expedition, working under the general director of the Department of Siberian Peoples, A. S. Gurvich. As part of the expedition, Liapunova undertook additional research in 1975, 1976, and 1977. The MAE only holds some of the documents resulting from the expeditions. Liapunova wrote:

From 1975 to 1977, amongst the Commander Islands Aleuts, we recorded the indigenous knowledge about the ethnogenesis and settling of the islands by groups of Aleuts, their previous territorial subdivisions, and the origins of the Commander Island Aleuts themselves.... It was interesting to procure lists of old Aleut families, which we took down from interviews with elders in 1975. Every island had a unique list, duplicated only in one or two cases (Liapunova 1987:185–186).

The MAE archive (*delo* no. 1305) contains information about indigenous medical knowledge, the methods for processing pelts, fishing, etc. (AMAE, f. K-I., op 2.,

no. 1305, l. 29–57). These observations were collected by Liapunova during the 1976 expedition. It is known that in 1976 she recorded two early unpublished Aleut myths about the deeds of eagle and raven, dictated from information provided by the Aleut Pankov.

In 1976, on Copper Island, Liapunova also conducted archaeological excavations in the town of Preobrazhenskoe. The artifacts Liapunova discovered were sent to the Aleut Local History Museum in the village of Nikolskoe on Bering Island. These artifacts included a hook for pulling the catch out of the water (no. 137), a lead weight shaped like a fish (nos. 8, 9, 10, 64/1-2), a fishhook for catching halibut (no. 12), a mold for casting weights in the shape of a fish (no. 136), half of a split mold for casting weights in the shape of a ship (no. 268), a bone object with open-work carving (no. 197), a hook for walking on slopes (cat's hand) (no. 11), and copper harpoon tips (nos. 6, 7).

In the 1980s, Liapunova spent another three seasons among the Commander Island Aleuts. In 1981 she traveled there together with A.N. Anfertevii (Institute of Ethnography, Moscow), in 1985 she went with G.I. Dzeniskevich, and in 1988 she went with V.T. Bochever (MAE). The MAE financed these expeditions, and as a result the reports and other materials are located in the museum's archives (AMAE).

The results of the 1981 explorations include an entire diary, Liapunova's report, and lists of Aleuts. We will include several quotations from Liapunova's report:

The Aleut national region is the smallest in our country. Its territory consists of two islands, Bering and Copper Islands. Today, there is only one inhabited location, the village of Nikolskoe. The population is around 1,350 people, out of which 275 are Aleuts. It is not possible to get a more exact number of inhabitants, since there is constant migration between the islands and the mainland. As a rule, all children from mixed marriages are included as Aleuts, irrespective of which parent is an Aleut. The explanation for this is first of all that all Aleuts receive certain benefits given to the "small people" of the North. These benefits are particularly in the salmon fishery.

Animal farming occupies a central place in the economic life of the region, contributing around 91% of the gross domestic product (AMAE, f. K-I, op. 2, no. 1307, l. 1–2).

The pronounced numerical superiority of the Russian population developed during the last two or three decades. Naturally, it leads to a reduction

of the ethnic differences between the Native and immigrant populations. The low number of Aleuts is explained by the growing tendency, especially strong in the last few years, to enter into mixed marriages. Before our eyes many features of traditional life are disappearing. The linguistic situation demands special attention. During the entire time Aleuts have been on the Commander Islands they have written in Russian and used the Aleut language only in conversation. As there are two islands separated from each other, two separate dialects developed—the Bering and Copper Island dialects. Therefore, the inhabitants predominantly use Russian when they come together. Both dialects have been frozen in their development, and not enriched, because for some time their use has been counted as a mark of low culture. The creation of such an opinion has much to do with the nefarious politics of the administration in the area of language, expressed, in particular, by the fact that children are forbidden to speak Aleut at school. Today only the elderly actively use Aleut (AMAE n.d.: f. K-I, op. 2, no. 1307, l. 4–5).

The fundamental shortcoming of the ethnic situation on the Commander Islands today can be expressed thus: the interests of the local, indigenous population has taken second place behind the attempt to develop mink farming and increase the population of these animals. It is imperative to fundamentally reorient the economy towards the needs of the indigenous population, on the foundation of sound scientific recommendations. It is imperative, in this region which carries the name of the Aleut nation, that primary attention is turned to elevating Aleut culture.

The representatives of local organizations sometimes express strange views about these issues. In a conversation with us, the new director of the fur farm, P.F. Danilin, asserted that the foreign workers worked more effectively than the locals. He claimed that the reason lay in the violation of workplace rules—several Aleuts, after being fired, went on an extended binge, and were returned to work under pressure from the District Party Committee and the Executive Committee only because they were Aleuts. Because of this, many exist solely on government largesse and are able to freely get drunk. P.F. Danilin sees the government interest as strictly punishing any violation of workplace discipline, no matter the national origin of the rule breaker. He does not even think about the origins of the socioeconomic structures which would allow the Aleuts to reach a place more conducive for cultural growth. It must be noted, that proclama-

tions about the effectiveness of Aleut labor are extremely contradictory. This is explained by the fact that Aleuts are irreplaceable in hunting and other similar kinds of work in which there is no standard working day, and which demand initiative in conjunction with physical dexterity. However, it is very difficult to get used to the monotonous labor performed hour after hour on the fur farms. New skills cannot be inculcated within the life of one generation (AMAE n.d.: f. K-I, op. 2, no. 1307, l. 12–13).

There are several documents from the 1984 season in the MAE archive, including Liapunova's notebooks, a draft of her daily diary, and two diaries from Dzeniskevich. According to Liapunova's information, on July 1, 1984, there were 292 Aleuts on Bering Island, including 146 men and 146 women. The average salary for Russians was 778 rubles per month, and 158 for Aleuts. Dzeniskevich notes in his field diary concerning the educational level of the 178 that 3 were illiterate, 30 had only a beginning education, 78 had begun middle school, 44 had completed middle school, 20 had specialized middle school, and 3 had higher education (AMAE n.d.: f. K-I, op. 2, no. 1390, l. 22 ob–23).

Dzeniskevich noted that around thirty Aleuts spoke their Native tongue. Attempts to teach English as an option in school had brought no success. Dzeniskevich's additional notes are fairly sketchy. For example, after a conversation with a teenage girl named Anna Fedorovna, he wrote:

Very few experiences for children, loosely attached to culture. Need to orient children better to technical schools and without examinations, and those in midland, and not in local ones. More excursions, in order to mature, they pay little attention [to that]. It is right to be embarrassed of the Russians (without bribery it is impossible to buy a book, for example like the Russians).

There are study groups in school. The boys are very drawn to technology. A technical group for children would be very good [to organize]. The local cadres will not grow, unless they have this kind of relationship with the Aleuts. The Aleuts are kind and unselfish. To inspire children, to civilize them—that is the main task—Artek and Orlenok [children's camps] are not for everyone (AMAE n.d.: f. K-I, op. 2, no. 1390, l. 17–18).

From the 1988 research, the MAE archive (AMAE) holds the field journal, notes from the household books

from Nikolskoe, and lists of its Aleut inhabitants. Liapunova wrote in the field journal:

In everything one must note, that the non-native population—for the most part temporary—is much larger (almost 5 times) than the local population, that the non-natives have more education, they occupy the more prestigious posts, and their initiative (especially for enrichment) suppresses the initiative of the native inhabitants—Aleuts and a small number of old-timer Russians. In all it works out that the Aleuts in their own homeland are in a marginal situation. The higher socio-economic status of the temporary immigrants creates the threat of the social and national segregation of the indigenous population (AMAE n.d.: f. K-I, op. 2, no. 1390, no. 1595, l. 5).

And further:

Here the informal gatherings of Aleuts around some Aleut leader (man or woman) must be discussed. Rather, it is not a leader in the full sense of the word, but a person in whose house a group might get together without shame, eating traditional food (salted fur-seal flippers, real, unsalted, fermented *yukola*, salted fur-seal meat, etc.), conversing in Aleut or in Russian. Here one can hear original Aleut folklore. Unfortunately, Aleuts gather together here to drink. And among this group of people are preserved... traditional Aleut marriage relations, i.e., free relations before marriage, toleration of extramarital affairs, temporary, easily dissolved marriages. From these practices there are unmarried Aleut women with children, women with Russian husbands and from one to two and even three children with Aleut first names and patronymics (as a rule, in the case of premarital or extramarital children, the first name and patronymic are taken from the children's uncle or the first husband, who is usually an Aleut). These informal groups more than any others maintain Aleut national traditions, language, character, and some habits. It is to a large degree thanks to these groups that the Aleut people did not end up as prophesied almost thirty years ago by I.S. Gurvich, who foresaw the total merger of Aleuts with Russians in the near future. We believe this will not take place to any large degree in the near foreseeable future—thanks to the existence of such groups. These groups preserve the traditional Aleut practice of adopting orphaned children out to relatives (usually on the mother's side) (AMAE n.d.: f. K-I, op. 2, no. 1390, l. 10–11).

Regarding the transformation of the collected field notes into scientific works, Liapunova used them to write the chapter "Ethnohistory of the Commander Island Aleuts (first half of the nineteenth century to present)" in her monograph, *The Aleuts: Ethnohistorical Essays* (Liapunova, 1987:177–201). Her ethnographical descriptions of Aleut culture were not included in the chapter. In writing the chapter, Liapunova used the same sociological scheme applied earlier by M. A. Sergeev (1938:88–110). She repeated these same observations in two other articles (Liapunova 1989, 1999).

During the course of her long life, Liapunova maintained professional contact with the American archaeologist William Laughlin (1919–2001). As mentioned, in 1938 he visited the Commander Islands as part of Aleš Hrdlička's expedition. In 1973 he attended an international symposium on "Beringia in the Cenozoic," in Khabarovsk. The Siberian archaeologists A. P. Okladnikov, R. S. Vasilevskii, N. N. Dikov, and Yu. A. Mochanov were also there. William and Ruth Laughlin, D. Hopkins, F. West, and others were part of the American delegation. At the end of the symposium, the American academics visited Novosibirsk, Moscow, and Leningrad. William Laughlin invited Okladnikov to take an archaeological expedition to Umnak Island (Aleutian Islands). This took place in July–August 1974 (Laughlin and Okladnikov 1975, 1976; Okladnikov and Vasilevskii 1976). The following year the American archaeologists paid a reciprocal visit to Moscow. An agreement was reached to conduct archaeological research on Sakhalin, in Kamchatka, and in the Commander Islands. However, authorities only allowed the research to take place in the region of Pribaikalye. Therefore, Laughlin's plans to conduct a second anthropological investigation of the Commander Island Aleuts came to naught.

Laughlin traveled to the Soviet Union several times in the second half of the 1970s. He established fruitful academic contacts with the anthropologist Valerii Pavlovich Alekseev (1929–1991), the ethnographer Ilya Samuelovich Gurvich (1919–1992), and with Liapunova. These contacts compensated somewhat for Laughlin's inability to visit the Commander Islands, as all of his Soviet colleagues conducted field work amongst the Aleuts there. Alekseev went there in 1973 (Alekseev 1981:6–33), Gurvich in 1968 (Gurvich 1970), and Liapunova's research has already been discussed.

In 2009, N. A. Tatarenkova, a doctoral candidate at the MAE, became deputy director of the Aleut Local History Museum in Nikolskoe, on Bering Island. The theme of her PhD dissertation was "Traditional uses of the environment by the Aleuts of the Commander Islands."

For over a century, the MAE has received ethnographical collections and conducted academic research on the traditional culture of the Aleuts of the Commander Islands. We hope, that in the coming years new academic monographs will appear describing the traditional culture of this small American nation, which has found a second homeland in Russia.

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RESEARCH NOTES

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Research Notes is intended to be a useful venue for making colleagues aware of ongoing or recent research and for disseminating brief notes of new ^{14}C dates or other interesting finds, particularly those that may not be otherwise published. We intend to include information on research anywhere in the circumpolar Arctic and sub-Arctic.

NORTHERN ALASKA

EMERGENCY EXCAVATION OF ERODING PRECONTACT HOUSE AT WALAKPA (UALIQPAA)

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A sod house was discovered eroding out of the shoreline at Walakpa (Ualiqpaa). The house was partially exposed

and appeared unstable (Fig. 1). It was located right next to Dennis Stanford's 1968 and 1969 excavations (Stanford 1976). Salvage work was carried out with a combination of UIC Professional Services (UICS and UMIAQ) personnel and community volunteers, with additional funding from the North Slope Borough.

We recovered two of Stanford's three site datums and were able to record locations within his site grid. All artifacts were point provenienced with the transit. Other



Figure 1. Eroding house viewed from the beach.

materials (e.g., bone fragments, chert flakes, woodworking debris, baleen strips) were excavated in small areas with provenience to within 50 cm horizontally and 5 cm vertically. We reached frozen ground near the back wall of the excavation on September 11. Excavation continued until the site froze.

It appears that there were a series of living surfaces at that location. The most recent appears to be the floor of a tent or similar structure (Fig. 2), rather than a winter sod house. There is clear evidence that at least one sod house was located there. There were a series of what appeared to be house floors. These were covered by layers of midden, suggesting that the house was repeatedly abandoned and then rebuilt. The house at one point seems to have had a meat storage pit or cache built in it, which was filled with midden.



Figure 2. Part of probable tent floor.

The artifacts ranged from modern plastic eyeglass frame fragments in the sod layer to harpoon heads that are stylistically Late Birnirk/Early Thule (Fig. 3). We did not reach sterile, so it is possible that there is Choris material at the bottom.

Funding for radiocarbon dating has been obtained from the National Science Foundation via a RAPID grant and suitable samples have been submitted for radiocarbon dating.

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Figure 3. Late Birnirk–Early Thule-style harpoon head.

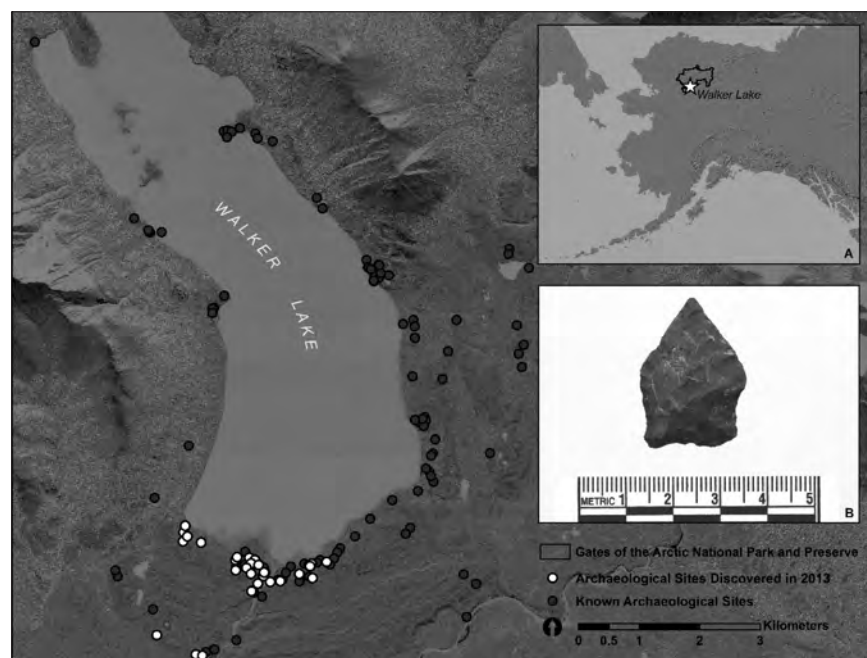
NORTHERN INTERIOR

ARCHAEOLOGICAL SURVEY AT WALKER LAKE IN GATES OF THE ARCTIC NATIONAL PARK AND PRESERVE IN 2013: RESEARCH NOTES

Jillian Richie and Jeff Rasic, National Park Service, Gates of the Arctic National Park and Preserve

Located at the headwaters of the Kobuk River in Gates of the Arctic National Park, Walker Lake was the focus for a National Park Service archaeological survey in July 2013. A crew of four archaeologists travelled to the southern shoreline of Walker Lake and evaluated the condition of known prehistoric sites, expanded survey coverage, and identified new archaeological sites. Past surveys in the area (Hall 1974; Kunz 1984; Rasic 2003) documented small lithic scatters indicative of short-term prehistoric hunting locations, and the results of the 2013 NPS survey follow this trend.

Fourteen known archaeological sites were revisited during the 2013 field season, and sixteen new sites were discovered. A typical site contains one or more flake scatters, small in both number of artifacts and extent, and is located within 500 m of the lake on the lake-facing side of one of the many elevated and well-drained landforms in the area (e.g., bedrock knolls, beach ridges, and glacial moraines).



Map of Walker Lake showing archaeological sites. Inset A: Geographic location of Walker Lake in Gates of the Arctic National Park and Preserve, Alaska. Inset B: Side-notched projectile point collected in 2013 from a site near Walker Lake.

Scatters consist primarily of non-diagnostic lithic debitage in a variety of materials, including chert and obsidian. Tools are scarce but present and include unifacial scrapers, expedient flake tools, microblades, biface preforms, and a single side-notched projectile point (figure inset B) relocated from Kunz's 1983 survey (Kunz 1984). The small, chert projectile point was the only temporally diagnostic artifact encountered on this survey, but previous work produced similar side-notched projectile points characteristic of the Northern Archaic tradition. Obsidian is common in assemblages from this area, which is unsurprising given the easy river routes to the Koyukuk River drainage and the major obsidian source area of Batza Tena found there. Geochemical analysis of existing museum collections from multiple sites in the vicinity of Walker Lake shows that Batza Tena (Group B) is the overwhelmingly dominant obsidian type ($n = 301$ specimens), although small amounts of Groups P ($n = 24$), G ($n = 6$), and N ($n = 1$) also occur.

The potential for intact stratified features exists at Walker Lake sites, but deeply buried cultural materials were not encountered in 2013. Of thirty-eight positive shovel test pits, thirty-six contained artifacts between 0–10 cm below surface, two had flakes below 10 cm below surface, and two revealed hearth features. At site XSP-046, AMS dating of charcoal from a hearth feature found

22 cm below surface yielded an age of 3,980 ^{14}C yrs BP (UGAMS-15164). At site XSP-009/XSP-249, the bioapatite fraction of a calcined mammal bone fragment yielded an age of 4,320 ^{14}C yrs BP (UGAMS-15163). Faunal remains were also documented at four other sites in 2013, although the specimens are fragmented and the taxa not readily identifiable. Faunal remains identified during past studies at Walker Lake, however, demonstrate caribou was one prey species targeted by hunters at this location (Kunz 1984).

Information gained during the 2013 field season is preliminary in nature, but when paired with the results of previous work, tentative conclusions can be offered. Given the presence of artifacts with Northern Archaic characteristics in nearby sites and an absence of cultural material representing other traditions (such as

partially coeval Denbigh Flint Complex), the archaeological sites dated in 2013 are most likely associated with the Northern Archaic tradition. Additionally, the ephemeral nature of sites at Walker Lake, along with artifact assemblages that include end scrapers and bone fragments, appears to reflect temporary hunting localities. The vast majority of evaluated sites are stable and in good condition, with only minimal impacts by human or natural disturbances.

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SOCIAL AND ECONOMIC DEVELOPMENT OF THE NETS'AII GWICH'IN OF ARCTIC VILLAGE, ALASKA

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Since 1999 I have been conducting field work among the Nets'aai Gwich'in of Arctic Village, Alaska. My research combines historical, sociological, and community planning methods and theoretical frameworks as a foundation for the evaluation and analysis of this evolving Alaska Native tribe. Additionally, I seek here to include traditional native knowledge which has, for all too long, been ignored in many academic circles. My most recent and significant support for the study (2011–2013) was a grant from the National Geographic Society Waitt Grants Program.

Through an analysis of the role of religious institutions, formal education, and government-provided services

on the one hand, and the ongoing practices of subsistence (hunting, fishing, gathering) in an era of climate change on the other, I have sought to understand how this community is negotiating, adapting, accommodating, and facilitating social and economic development within the global economy.

I am now writing a monograph that is centered largely upon village youth, for their changing interests, values, attitudes, and behaviors clearly signify the emergence of an ever-evolving twenty-first-century Alaska Native. The monograph is tentatively titled *Living on Thin Ice: The Social and Economic Development of the Nets'aai Gwich'in of Arctic Village, Alaska*.

INTERIOR

TOCHAK MCGRATH DISCOVERY: PRECONTACT HUMAN REMAINS IN THE UPPER KUSKOKWIM RIVER REGION OF INTERIOR ALASKA

Robert A. Sattler, Tanana Chiefs Conference; Thomas E. Gillispie, Tanana Chiefs Conference; Vicki Otte, MTNT, Limited; Betty Magnuson, McGrath Native Village Council; Ray Collins, Tochak McGrath Museum; and Kristi Harper, NRCS Alaska Tribal Liaison, USDA/NRCS

In October 2012, the discovery of human remains in the western Interior Alaska village of McGrath rapidly evolved into a community research endeavor. Construction relating to an emergency erosion project turned up the skeletal remains of three individuals on land owned by MTNT, Ltd. near the center of McGrath. MTNT is a consortium of for-profit village corporations created by the Alaska Native Claims Settlement Act (ANCSA) that includes McGrath, Telida, Nikolai, and Takotna. All four villages are located in the upper Kuskokwim River drainage and share an Athabascan cultural heritage (Collins 2004; Hosley 1981). The remains, representing two adult males and a small child, were placed in the in the custody of the local tribal entity, the Native Village of McGrath, and consultations began among affected tribal, state, and federal entities.

The upper Kuskokwim Native leadership invited archaeologists affiliated with their ANCSA regional non-profit corporation, Tanana Chiefs Conference (TCC), to assist. TCC helped bring the project into compliance with the National Historic Preservation Act and facilitated consultations with the Native leadership over custody and

research opportunities. Through additional consultations, which included the National Resources Conservation Service and the Alaska State Historic Preservation Office, agreements were negotiated to preserve the discovery site while allowing the construction project to continue. The consultations with Alaska Native leadership over custody and research opportunities led to a separate agreement authorizing the transfer of the human remains to TCC for scientific analyses for a period of five years.

Following the consultations, MTNT-affiliated tribal members crafted a wood container to carry their ancestors during transport to the TCC central office in Fairbanks. Following a community celebration in McGrath, the remains were flown to Fairbanks, with a brief stop in the traditional village of Nikolai where elders greeted the aircraft at the village runway and blessed the remains. In Fairbanks, the cooperating agencies and Native entities convened a formal press conference announcing the discovery. The press conference included a blessing by an Alaska Native Episcopal leader, which consecrated the ancient remains (*Fairbanks Daily News-Miner* 2012).

The initial phase of scientific inquiry consisted of radiocarbon dating and osteological data collection, including skeletal representation, biological age estimates, dental features, and an assessment of pathological markers. A second research phase included further radiocarbon dating, ancient DNA testing, radiological examination, and stable isotope analyses. Preliminary results are available for these studies and more are expected. During the summer of 2013, systematic archaeological testing in and around the McGrath discovery locale yielded stratigraphic evidence of a younger component with a hearth feature, lithics, worked bone fragments, and nonhuman faunal remains. This phased approach has provided the time necessary to accommodate informed tribal consultation, community presentations, and popular media outreach. One outcome of the collaboration between the tribal and research communities has been the emergence of a voluntary modern DNA research project with implications for historical population reconstruction and improved clinical health outcomes for tribal members in the TCC region.

The joint scientific and medical team established to advance this community research project include Joel Irish, Jamie Clark, Dan Johnson, Keir Fowler, George Bird, Richard Scott, Geoff Hayes, Dennis O'Rourke, Jennifer Raff, Holly McKinney, and Carrin Halfman. Volunteered services include those provided by Fairbanks

Memorial Hospital and Radiology Consultants. The 2013 excavation team included Bob Sattler, Angela Younie, Michael Grooms, and Christine Fik. Tribal leaders involved in consultations include members of the McGrath Native Council; board members of MTNT, Ltd.; and tribal chiefs of the TCC Upper Kuskokwim Advisory Board. Tom Gillispie drafted the initial site report and negotiated the management documents. KSKO general manager Mike Lane convened two live radio broadcasts in McGrath to share results with Upper Kuskokwim residents. Last, the greatest compliment is to Jim VanRaden, the employee of North Star Paving and Construction who honored a civic duty to report this remarkable discovery to the Native leadership, providing an opportunity to make all of this possible. Funding for this research comes from the Natural Resources Conservation Service, the National Science Foundation (grant #1216401), and Tanana Chiefs Conference Natural and Cultural Resources Department.

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HEALY LAKE VILLAGE: NEW DATA AND ANALYSIS FROM THE CHINDADN TYPE SITE

Thomas E. Gillispie, Natural and Cultural Resources Department, Tanana Chiefs Conference (tom.gillispie@tananachiefs.org); John P. Cook, independent researcher; Robert A. Sattler, Tanana Chiefs Conference; and Angela Younie, Center for the Study of the First Americans, Texas A&M University

The Healy Lake Working Group (HLWG), headed by John P. Cook, the original excavator of the Healy Lake Village site, is a research team organized to consolidate,

analyze, digitize, and publish the field data collected during excavations from 1966–1972 (Cook 1969, 1989, 1996). Located in central Alaska's middle Tanana River valley, the Healy Lake Village site was among the first archaeological sites in Eastern Beringia to be radiocarbon dated to the late Pleistocene and is the type site for the Chindadn Complex, dated to 13,370–9,090 cal BP (Cook 1975, 1996). Diagnostic artifacts include triangular and teardrop-shaped points, microblades and burins, blade tools, and end scrapers. However, cryoturbation, radiocarbon laboratory errors, and Cook's use of arbitrary two-inch excavation levels as temporal units for analysis have all been suggested as sources of interpretive error and potential foundations for the rejection of the Chindadn Complex as an interpretive entity (Erlandson et al. 1991).

In preparing the original Healy Lake Village excavation records for archival curation, we found previously unpublished field data directly relating to the Chindadn dating question. This documentation includes over 1,600 pages of notes, 300 photographs, fifty large-scale stratigraphic drawings, and scaled floor plans of excavation levels, and covers 3,500 square feet of excavation. Of particular importance are three-point provenience data for all artifacts collected in situ, combined with curated radiocarbon samples, including splits of many of the previously dated samples with original submission letters and lab reports. Numbering in the tens of thousands, the curated field specimens include the entire faunal assemblage, as yet unanalyzed, as well as the full collection of lithic artifacts. The assemblage has been scattered across several repositories since the original excavation, but is now housed together at the University of Alaska Museum of the North. This body of primary field data is sufficient to support new analysis of the Chindadn levels with greatly improved spatial and temporal control.

The HLWG is pursuing a detailed reexamination of smaller subdivisions of the site where Chindadn type artifacts are associated with cultural wood charcoal. Prior to dating new samples, we performed an exploratory analysis of the original site date list, using the probability density function technique. This method creates a high-resolution model of the date list as a probability distribution, without tying specific dates to specific excavation levels. Our results strongly suggest that the population of Healy Lake Village site radiocarbon ages contains internal temporal structure. Specifically, Cook's 1996 date list contains three distinct peaks in probability, centered

on about 9,500, 12,000, and 13,400 cal BP (Gillispie et al. 2013). This preliminary analysis leads us to hypothesize that the Chindadn Complex as originally defined at the Healy Lake Village site may encompass three components. To test this hypothesis, the HLWG is constructing a new Chindadn chronological framework that does not depend entirely on the site-wide arbitrary level system and will focus on stratigraphic associations between artifacts and dated materials within individual units. A redating program using modern AMS techniques is currently underway (Gillispie et al. 2013) and will be complemented by three-dimensional modeling of artifact proveniences, lithic and faunal analysis, and comparative information from new excavations at the nearby Linda's Point site (Younie et al. 2013).

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ALEUTIANS

COLLABORATIVE RESEARCH: GEOLOGICAL HAZARDS, CLIMATE CHANGE, AND HUMAN/ECOSYSTEMS RESILIENCE IN THE ISLANDS OF THE FOUR MOUNTAINS, ALASKA

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The National Science Foundation, Office of Polar Programs, Arctic Social Sciences has awarded funding to conduct archaeological, paleobiological, and geological research in the Islands of the Four Mountains, Aleutian Islands, Alaska. Assessing the degree to which geological hazards in the Aleutian archipelago disrupted prehistoric human and ecological systems has important lessons for current inhabitants of the northern Pacific Rim. The Islands of Four Mountains region embodies environmental instabilities that, in the last 10,000 years, include changing subarctic climate, volcanic eruptions, earthquakes, tsunamis, and sea-level fluctuations. Compared to adjacent regions to the east and west, strong ocean currents and smaller island size magnify ecologically driven resource extremes, perhaps creating a physical bottleneck and the cultural boundary that persisted into the early twentieth century. These islands provide an excellent opportunity to assess the development of prehistoric human adaptations to geological hazards and environmental change. That such research has not already occurred is understandable. The same volcanic activity, precipitous coastlines, high winds, and strong riptides that may have posed profound risks to prehistoric individuals hinder modern research expeditions. The Four Mountain prehistoric sites are little studied but are highly significant in light of new geologic data indicating volcanic activity during human migration and societal development in the Aleutian archipelago. A team of professional and student archaeologists, geologists, ecologists, and zoologists will conduct a comprehensive, interdisciplinary three-year investigation in the Islands of the Four Mountains. Extensive new radiocarbon, geological, paleoenvironmental, and cultural data expected from these sites will yield novel insights into the record of geological hazards, human coping mecha-

nisms, changing subsistence, and adaptations during the prehistoric and European contact periods.

The Islands of the Four Mountains are located in an ecologically and economically important region of the world—the North Pacific and Bering Sea. Humans on two continents rely on fish from its marine ecosystem and, given the sensitivity of airplanes to volcanic ash and of coastal cities to tsunamis, its geologic hazards potentially affect all nations of the northern Pacific Rim. Comprehensive research on long-term human-environmental interactions in the Bering Sea region, set against a backdrop of accelerated global change, is vital to understanding the dynamics of Aleutian biological and human systems and effectively addressing the social, political, and economic issues that arise from changes in those system dynamics today. The island group lies in a zone of high catastrophic potential in that one of its volcanoes, Mt. Cleveland, has erupted explosively more than twenty times in the last decade (as recently as May 2013) and during the time of prehistoric human habitation. The Aleutian Plate boundary is the site of four earthquakes having a magnitude greater than 8 and dozens with magnitudes greater than 7, and these have generated tsunamis historically and prehistorically. Through partnerships with the Alaska Volcano Observatory, the Aleut Corporation, the Museum of the Aleutians, and the Keck Geology Consortium, this project will bring scientists, Native Americans, students, and policy makers together in education and collaboration.

ISLAND NETWORKS: SUBSISTENCE AND CIRCULATIONS IN THE ALEUTIAN ISLANDS

Katherine L. Reedy, Department of Anthropology, Idaho State University

As part of a three-year study on subsistence harvesting and social networks funded by the Alaska Office of Subsistence Management (OSM) of the U.S. Fish & Wildlife Service, Katherine Reedy (PI) and assistant Andrea Kayser made multiple research trips to the Aleutian Islands in 2013. This project aims to understand wild food harvests, uses, and distribution in the Aleutian Islands communities of Adak, Atka, Nikolski, and Unalaska, linking results to recent work in Akutan, False Pass, Nelson Lagoon, and Port Heiden (Reedy-Maschner and Maschner 2012). Current detailed information on all subsistence harvests is needed for management of these species within and adjacent to the Alaska Maritime National Wildlife Refuge.



Andrea Kayser completes a survey with Sergie Ermeloff in Nikolski, Alaska, July 2013.

Using household-level and community-level data, the study uses a comprehensive survey instrument to document subsistence harvest levels and methods, distribution practices and sharing patterns of foods and products, social dynamics that contribute to those practices, spatial data on harvesting and sharing, and household and community economics. The study also investigates factors affecting overall access to subsistence foods (regulatory, obtainability, socioeconomic, and logistical), costs incurred, and resources (equipment, crews, etc.) needed in order to harvest. Surveys gather ecological observation data in conjunction with species observations to potentially evaluate climatic impacts on subsistence species. The study also gathers information on recent changes to subsistence harvests so managers can better understand factors that have shaped current practices, for example lost or increased access, changing regulations, climatic influences, and socioeconomic opportunities or losses. Comprehensive ethnographic profiles accompany this work.

Initial visits to introduce the project and conduct key informant interviews were made to each community in the spring and summer of 2013. In July 2013, we surveyed the entire village of Nikolski (fifteen households) and in September 2013, we surveyed 90% of Adak's estimated forty-four households. Surveys of Atka and Unalaska will be completed in spring 2014, using methods in the large community of Unalaska to target active harvesters who are assumed to be embedded in large or small sharing networks and snowballing out to those individuals to whom they have ties. Social network data are not random or probability samples; this project is a departure from conventional survey data and demands complementary methods. This approach is effective for tracking specific segments of large populations. It will further allow us to follow capacities, opportunities, constraints, duties, and burdens of harvesters and sharers.

Each community is so varied in its history, composition, scale, and economy, yet they all engage with wild

foods at high levels. Preliminary findings suggest a vast interaction zone between communities in some of the most inconvenient and challenging circumstances. Whenever people, vessels, and airplanes move in and out of these communities, so too do wild foods, but at great costs and planning, requiring healthy social relationships and creativity. The study will contribute to an understanding of the strategies utilized to support everyday economic and food requirements and explore the ways in which remote, seemingly isolated communities are necessarily integrated into socioeconomic systems beyond themselves, even as they experience diminishing economic ties to Bering Sea and North Pacific fisheries.

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THESIS AND DISSERTATION ABSTRACTS

Monty Rogers

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While conducting research for my master's thesis, I came across the Australian Archaeological Association's journal *Australian Archaeology*, which has a reoccurring section dedicated to dissertation and thesis abstracts. This got me thinking that a similarly styled section in *AJA* would be beneficial in promoting student-derived arctic and subarctic anthropological research relative to Alaska.

The new section will include abstracts of recent theses and dissertations and will regularly appear in future issues of *AJA*. The inaugural edition of this section consists of two abstracts from Canadian universities, two from Alaska universities, and one from a Scottish university. Two of the abstracts represent archaeological research, two are derived from cultural anthropological studies, and one is based on medical/cultural/biological research. Hopefully you will find this new section as beneficial as I did when I came across the Australian equivalent.

SHADES OF GREEN: THE SOCIAL NATURE OF YUKON FORESTS

Jodie Asselin

Ph.D. dissertation, 2013, Department of Anthropology, University of Alberta, Edmonton

ABSTRACT

This work is an exploration of forests as understood and encountered from varied and overlapping perspectives in the Yukon Territory. Focusing on nonindigenous Yukon residents who hunt, trap, work, recreate within, and aim to protect Yukon forests, it addresses the origins and implications of diverse forest perspectives in Canada's north as well as the correlation and interaction of these perspectives with indigenous cultural, economic, political, and historic forest connections. As a means of exploring the origin of forest perspectives, the author focuses on four key areas: Yukon forest history and its connection to contemporary forest views, divergent user experiences and knowledge of forests, the implications of regulation and boundaries on the forest experience, and the role of imagination in forest perception. As multilocal and multivocal place, forests are approached as consisting of overlapping meanings that are

far more complex than use-based distinctions allow for. As a result, many contradictions become apparent: that Yukon forests are experienced as both pristine wilderness and as places of intensive human use, as places of freedom while also being bound by bureaucracy, and as the focus of competing forms of environmentalism from unexpected sources. A number of points arise from the examination of such contradictions, including the potential for used spaces to once again be experienced as wild, how deliberately simplified self-narratives can mask complex human-environment relations, and how the language surrounding forest use and management is not necessarily based on common understandings of forests experience. Rather than focusing on forests as the background to broader social or economic issues, this work examines the multilocal and multivocal nature of forests as a means to better understanding local views, actions, and relationships between forest users. Set within the shifting priorities and economic and political realities of the far north over the last century, this examination of divergent forest perspectives explores human-environment relations in Canada's north with an eye towards contemporary resource management and consultation processes. This work is based off of anthropological fieldwork that took place in the Yukon

Territory between 2008 and 2010. Methods included archival research, interviews and participant observation.

Online at <https://era.library.ualberta.ca/public/datastream/get/uuid:36e1c134-3f9b-447a-951e-1ce378ba85a3/DS1>

“NEVER SAY DIE!” AN ETHNOGRAPHIC EPIDEMIOLOGY OF *H. PYLORI* BACTERIAL INFECTION AND RISK PERCEPTIONS IN AKLAVIK, NWT

Sally Carraher

Ph.D. dissertation, 2013, McMaster University, Department
of Anthropology

ABSTRACT

Helicobacter pylori is a bacterium that infects the human stomach lining and is known to cause peptic ulcer disease and stomach cancer. This infection has become a major concern of indigenous peoples living in the Mackenzie Delta of the NWT, where both *H. pylori* infection and stomach cancer occur with greater frequency than in southern Canada and the United States. Some initial analyses of data gathered on income, housing and household living conditions, and other socioeconomic factors suggest that indigenous residents of Aklavik who live with greater social inequities may have an elevated prevalence of chronic *H. pylori* infection—a pattern that resembles high *H. pylori* prevalence in other marginalized populations across the world. I joined the Canadian North *Helicobacter pylori* (CANHelp) Working Group in 2010 to conduct participant observation in the Aklavik *H. pylori* Project (AHPP) and identify ways that ethnography can be integrated into the ongoing multidisciplinary research program.

Between September 2011 and June 2012, I lived as a participant observer in Aklavik, NWT (population ~625). During this time, I led an epidemiological field study of *H. pylori* incidence and reinfection. We found that the prevalence of this infection has diminished (and reinfection is relatively rare so far) amongst long-term project participants. However, the community as a whole has remained extremely concerned about *H. pylori*, especially in light of two new stomach cancer diagnoses in the community since the AHPP started. I examined how different risk perceptions emerge from processes of “making sense” of *H. pylori* as a “pathogen” or as a “contaminant” and de-

scribed how these different constructions inform people’s risk-avoidance strategies.

Indigenous residents of this community perceive historical colonialism as the source of contemporary social inequities. Local narratives of cancer as well as *H. pylori* reference notions of “contamination” that is perceived to have been introduced to the Arctic through the physical and cultural pollution of historic colonialism and boom-and-bust economic projects. Local perspectives clash with scholarly narratives, which assert more broadly that human health often improves (and more specifically, that the frequency of *H. pylori* infection generally decreases) when a society modernizes its socioeconomic system and increases standards of living. Ethnography of these contrasting, yet entangled, views can make visible the lenses through which different groups of actors perceive, experience, understand, and react to *H. pylori* infection.

In my dissertation, I argue that there is a need to explicitly acknowledge that the social inequities associated with *H. pylori* infection today have historical roots from approximately a century of colonial history in Aklavik. Multivocal ethnography can contribute to epidemiological analyses by adding a broader historical, geographic, and political context to our understandings of contemporary health inequities and facilitating cross-cultural understandings of different ways of knowing and responding to the perceived risks of *H. pylori* infection. Developing collaborative, multifaceted understandings should be useful for the AHPP’s ongoing knowledge translation component, and consensus truths can be built collaboratively between outside researchers and indigenous Arctic communities as these groups work together in an ongoing, and community-driven, research project.

DENDROCHRONOLOGY ON THE KENAI PENINSULA, ALASKA: DATING HISTORIC STRUCTURES USING TREE-RING ANALYSIS

Tiffany Curtis

Master’s thesis, 2013, Department of Anthropology, University
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ABSTRACT

In an effort to better understand key events in the EuroAmerican settlement of the Kenai Peninsula, the remains of wooden structures found within the Kenai National Wildlife Refuge boundaries were dated using

dendrochronology. Events such as the fur trade, gold mining, homesteading, and settlement patterns across the peninsula were examined using dendrochronological analysis coupled with ethnohistoric accounts. Samples from fifty-five structures were analysed, with construction dates estimated for forty-two of them using both COFECHA and CDendro statistical analysis software. A multimodal distribution of construction activity was reflected by the tree-ring date frequency. The first peak occurred at the beginning of the American Period, circa 1870. The second peak occurred during the Gold Rush/Homesteading Period that began at the turn of the twentieth century, circa 1897–1915. The third and largest peak coincided with the Great Depression, which brought people into the region possibly to create better lives for themselves and their families. A final small peak coincides with Alaska statehood. Settlement patterns shifted during these periods from a concentration in the south around Lake Tustumena to more remote regions along water transportation routes and along modern transportation corridors with the establishment of railways and the Sterling Highway.

TAPHONOMIC ANALYSIS OF FISH REMAINS FROM THE MINK ISLAND SITE (XMK-030): IMPLICATIONS FOR ZOOARCHAEOLOGICAL AND STABLE ISOTOPIC RESEARCH

Holly J. McKinney

Ph.D. dissertation, 2013, Department of Anthropology,
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ABSTRACT

This dissertation is focused on shedding the taphonomic overprint at the Mink Island site (XMK-030) to assess temporal variability of the fish bone assemblage and to establish sample selection criteria for stable isotope ($\delta^{15}\text{N}$, $\delta^{13}\text{C}$) analysis. These retrospective data may be used to identify the causes and consequences of long-term variability in local fish assemblages when combined with modern fisheries and paleoceanographic data. To use these data, it is essential to account for the effects of biostratinomic and diagenic agents. Intertaxa and interelemental differences in bone density, shape, size, protein, and lipid content result in differing preservation and contamination potential. Without mitigating for the effects of these biostratinomic and diagenic agents, temporal changes in abundance may

be skewed in favor of skeletal elements that best survive destruction. Moreover, stable isotope values may reflect differences in preservation and contamination rather than variability in ecosystem structure and function.

The results of several experiments conducted to assess preservation and contamination levels of Mink Island fish bones revealed that:

1. preservation and contamination potential are linked with completeness percentages and burial duration, but not with bone volume density;
2. Pacific cod dentaries that are intact, unburned, and free of visible contaminants are best suited for stable isotope analysis;
3. the modified Bell pretreatment method is validated for archaeological fish bones; and
4. because color-affecting contaminants cannot be removed without heat, color-based methods are unsuitable for assessing the cooking/burning stage of archaeological fish bones.

Interactions among humans and fishes at Mink Island were assessed using a four-stage resource depression and intensification model. The Mink Island occupants shifted their focus from small flatfishes during Stage I (7500–4500 cal BP), to Pacific cod and sculpins during Stages II (4500–2800 cal BP) and III (2800–900 cal BP), to a mixture of taxa (sculpins, cods, herring, and salmon) during Stage IV (900–400 cal BP). A decrease in Pacific cod fork lengths indicates that resource depression occurred during Stage II. Taxonomic proportion, evenness, salmon index, and skeletal element representation data demonstrate that salmon intensification did not occur during any stage at Mink Island.

NEVER ALONE: NARRATIVES OF SPIRITS IN AN ALASKAN YUP'IK COMMUNITY

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Ph.D. thesis, 2013, Department of Anthropology, University
of Aberdeen, Scotland

ABSTRACT

This thesis examines the meaning and use of narratives of spirits in the settlement of Scammon Bay, a Central Yup'ik community of about 500 people on the southwestern shore of the Bering Sea in Alaska. During my ethnographic fieldwork in the settlement from 2007 to 2010, I learned that the majority of villagers over three years

old routinely tell and listen to stories about spirits to interact, build relationships, and engage with their nonhuman neighbours. I contend that Scammon Bay people's narratives of spirits make powerful statements about the well-being of, and disorder in, the world. These stories illustrate how spirits are responsive beings who are part of Scammon Bay's sentient environment. I argue that they are aware of, and reactive to, human actions and people's moral failings. Most residents consider telling and listening to stories about their nonhuman neighbours an empowering act through which they shape the behaviour of themselves and those around them, while indirectly commenting on their own experiences within the settlement's history of colonial domination. I hypothesise that narratives of spirits provide healing measures for community members by offering a means to articulate their modern-day social ills in a nondisruptive fashion, thus strengthening Yupiit's resilience in circumstances of rapid social change. By analysing the connection between storytelling and culture change, this thesis explores the ways that the people of Scammon Bay use narratives of spirits to find meaning, understanding, and hope in their lives.

REVIEW

KEYSTONE NATIONS: INDIGENOUS PEOPLES AND SALMON ACROSS THE NORTH PACIFIC

Edited by Benedict J. Colombi and James F. Brooks, 2012. School for Advanced Research, Santa Fe, NM. Paper, 305 pages, photos, line drawings, maps, tables, index. ISBN 978-1-934691-90-8; \$34.95.

Reviewed by Catherine F. West

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Colombi and Brooks' edited volume, *Keystone Nations: Indigenous Peoples and Salmon across the North Pacific*, is an impressive and thoughtful collection of case studies drawn from a seminar at the School for Advanced Research (SAR). This diverse group of ethnographers came together to explore the relationships between indigenous people and salmon along the North Pacific coastline from the Russian Far East to the Columbia River basin. The authors represent an array of geographic and theoretical perspectives, which the editors assemble in this 2012 publication to illustrate the variability and complexity of human-salmon relationships.

To frame the case studies, which derive from the Russian Far East, coastal Alaska, and the North American Northwest, introductory and concluding chapters reflect on the individual contributions and the volume's overarching themes. In the introductory chapter, Courtland L. Smith presents agricultural metaphors—such as harvesting, culturing, and farming—as a way to understand both how capture fisheries in this region have changed historically and the complex relationships among indigenous people, commercial industry, market economies, and common resources. In her complementary concluding essay, Marianne Elisabeth Lien does not simply summarize or generalize about the work, but asks how the ethnographies presented in this volume “may challenge our assumptions about both salmon and indigeneity, and [guide us to] look for differences rather than for generalizing traits” (p. 239). She emphasizes the blurred line between “culture” and “nature” in these communities and argues that the diver-

sity in human-salmon relationships presented in this volume should be a caution against generalizing approaches to salmon management across this region.

The essays themselves draw on a broad range of case studies to address a few central themes, which are laid out by the editors in the preface: (a) indigenous histories and knowledge systems; (b) the global economy; (c) policy, sovereignty, and co-management; and (d) emerging contemporary issues. From these themes, the authors are able to use ethnographic and historic data to deduce threats to both indigenous cultures and salmon, which are intermeshed in biological and political spheres. By examining the role that salmon play as a keystone species in a variety of North Pacific ecosystems and communities, including the Nivkhi, Itelmen, Koryak, Aleut (Unangax), Sugpiat, Gitxaala, and Nimiipuu, and the position of these communities in larger political, social, and economic contexts, this collection offers a fresh and innovative perspective of North Pacific fisheries.

All of the authors in this volume place contemporary indigenous people in a historical context in an effort to understand how social, political, and economic changes have influenced traditional fishing activities and the symbolic importance of the salmon. In Kamchatka, according to Koester (Chapter 3), there has been a resurgence of the deep connection between Itelmen identity and salmon, though both Kasten (Chapter 4) and Sharakhmatova (Chapter 5) find that many of Kamchatka's communities are limited by poor economic and political conditions that make inserting traditional lifeways and identities

into the Russian market economy extremely difficult. As several of the papers illustrate, indigenous communities grapple with balancing traditional lifeways, community sustainability, and the global economy. Wilson (Chapter 2) addresses the tension between protecting the Nivkhi salmon fishery and Sakhalin's offshore oil and gas development, while Reedy-Maschner (Chapter 6) and Carothers (Chapter 7) both emphasize the "entangled" and changing nature of Alaska's Aleut (Unangax) and Sugpiaq relationships with salmon, salmon fishing, and the global economy. Like the Nimiiipuu described by Colombi (Chapter 9), as these groups change economically, socially, and politically to adapt to global influences, their identities remain firmly rooted in salmon fishing. Several essays emphasize that indigenous people are not passive players but rather active participants in the discussions about and changes made to the salmon fishery (Carothers, Chapter 7; Reedy-Maschner, Chapter 6; Wilson, Chapter 2). Menzies (Chapter 8) takes an ecological perspective and acknowledges that the environment in British Columbia's Gitxaana territory reflects deliberate, long-term human influence.

While analyzing the role of Nimiiipuu and Columbia River tribes in a global, capitalist context, both Colombi (Chapter 9) and Diver (Chapter 10) address the power of fisheries co-management in these communities. These chapters give us a glimpse of the "alternative future" that is possible in this region if indigenous groups draw on their sovereignty, experience, and values and if potential partners are willing to engage in open dialogue that acknowledges tensions and makes room for indigenous voices.

The broad geographic scope of *Keystone Nations* will appeal to scholars working in anthropological or resource management contexts across this region, and its themes

are applicable in a global context. One of the strengths of this volume is that it offers a view across the North Pacific, an area that is bound by the salmon resource. It is valuable to see the commonalities in these chapters, the strength of indigenous identities, and the fundamental challenges to the salmon fishery across this region. However, the authors of these case studies make it clear that each indigenous community has a unique historical trajectory and has adapted to political and economic pressures in its own way, which suggests that the future of salmon management will vary across the region. The second great strength of this volume is that it takes a historical perspective, driven by theory and supported by ethnographic data, to consider the significance of emerging contemporary concerns. This perspective is increasingly important in discussions of North Pacific resource management (e.g., Braje and Rick 2011; Moss and Cannon 2011) and, as Lien argues in the concluding chapter, we must understand the history of the salmon's cultural context to understand why this fish is relevant and how it must be regulated. To expand on this valuable contribution, the editors promise a second volume that addresses the complexities of management practices and policies and imagines "alternative futures" (Colombi and Brooks, preface).

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REVIEW

THE ALUTIIQ ORTHOGRAPHY: KODIAK DIALECT

April G. L. Counciller and Jeff Leer, 2012. Anchorage, AK: Alutiiq Heritage Foundation.

Paper and ebook, 98 pages, photos, maps, tables, appendices, index. ISBN 978-1-929650-09-5. Available for free download at <http://www.alutiiqmuseum.org>.

Reviewed by Anna Berge

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The *Alutiiq Orthography* provides a detailed explanation of the orthographic conventions and rules for the representation of the Alutiiq language, a Yupik language spoken in the central gulf coast of Alaska. The creation of the orthography has taken a number of decades and undergone several incarnations. Rapid language shift to English during this time has resulted in a steady decline in the knowledge of language features that might otherwise be taken for granted when teaching literacy. The need for a definitive orthography together with an accompanying explanation of the orthography is therefore critical. This book clearly fulfills this need.

To understand the importance of this book, as well as decisions made in the development of the orthography, it is necessary to understand the history of literacy development and language endangerment in Alaska. Orthographies for a number of Alaska languages, including Alutiiq, were variously developed by missionaries, ethnographers, linguists, and explorers, although few of these had widespread and lasting effects. From the 1960s, collaborative work between the Alaska Native Language Center and speaker communities resulted in the development of orthographies for most of the Alaska Native languages, including the Yupik languages. Several considerations played an important role in these orthographies. The avoidance of special characters was driven by the relative ease with which characters could be typed. Orthographies were created to reflect morphophonological rules, resulting in a level of detail not always consistently found in writing systems; thus, the use of the

apostrophe to reflect syllable structure or gemination, or the representation of morphophonologically dependent changes in vowel length (cf. the underspecification of the pronunciation of the English plural morpheme *-s*, sometimes written *-s* and sometimes *-es* but never written *-z*). In addition, Yupik languages have particularly complex prosodic systems. Of these, Alutiiq prosody is the most complex. In much the same way that the representation of tone has been problematic in certain tonal languages, prosody has represented a challenge for Yupik writing systems. Alutiiq orthography encodes prosodic information that affects pronunciation through conventions such as the apostrophe (cf. Russian orthography, with encoding such as accent marks used for beginning language learners only).

The development of the Alutiiq orthography has taken place within this context. From the early 1970s, there have been several versions of the orthography, reflecting pronunciation changes resulting from rapid language change, a growing understanding of the intricacies of the phonological and prosodic systems, and a shift in technology from the typewriter to the computer. The current orthography represents years of work involving the active participation of elders, language teachers, language learners, and linguists. It has involved consensus on difficult issues. For example, orthographic conventions are often based on one particular dialect of a language; the attempt here is to create an orthography that is adaptable yet consistent—hence references to, for example, similarities or differences of Kodiak Alutiiq with the Chugach dialect.

The consensus on the orthography and the acceptance thereof is vital since the Alutiiq language is currently severely endangered, with fewer than fifty first language speakers of the Kodiak dialect, many of whom are elderly. Lack of speakers, teacher training, and language learning materials are all challenges to language revitalization efforts; the latter two are greatly improved by an established literacy program. This book, therefore, is prepared primarily for the combination of audiences most directly engaged in language revitalization, namely language teachers in training and language learners, and secondarily for non-community members such as linguists or other interested readers. Previous experience in teaching the language has highlighted areas of difficulty, and this has guided the development and presentation of the material in the *Alutiiq Orthography*, particularly in the explanation of syllable structure and prosody.

After a brief introduction explaining some of the principles guiding the development of the Alutiiq orthography, the participants, the intended users and uses, and some notes on dialect variation, the book is organized in somewhat self-contained chapters with copious references to other chapters as needed; these in turn are grouped in three parts, each of which builds on the previous part. Part I focuses on the alphabet and the sound system. Part II focuses on the complexities of syllabification in Alutiiq, including complications resulting from morphophonological processes such as the gemination or the dropping of sounds, and the orthographic choices made for representing these processes. Part III guides the learner through the processes needed to determine the proper prosodic reading of a word and explains the use of the nonalphabetic symbols, the apostrophe and hyphen. Part III also contains discussions of decisions made regarding the representation of Russian and English loanwords, a summary of the changes between this and previous recent orthographies of Alutiiq,

and a summary of the rules discussed in the book. There are several helpful appendices, a glossary, and an index.

The book is well organized, with copious examples, excellent references to other sections, helpful chapter summaries, and useful charts of older orthographies, and it is for the most part very readable. It could be improved by more clearly identifying the readership for which it is prepared. The authors state that it is primarily for people with linguistic training or with exposure to the language; however, these are often two very different groups of people with very different needs. Linguistic terminology is unevenly defined and less precise than needed for a linguist, while often unnecessarily technical for non-linguists. Likewise, expanding the discussion of dialectal differences within Alutiiq and Kodiak Alutiiq that are specifically relevant to the orthographical conventions would be helpful.

The purpose of the book is to introduce a standard Alutiiq orthography to encourage literacy and language learning; the book should prove invaluable in these efforts. Adhering to standard orthography is good for learners and teachers and helps in creating a common base of understanding of materials. The authors worry about unintentional or undesirable spelling changes, but such changes are bound to happen, as they also point out. Languages change naturally, eventually leading to opacity within the orthographic system (e.g., English). But no orthographic system is without its complications (e.g., the representation of Russian loans in Alutiiq) and difficult orthographies can be learned (e.g., Japanese). Eventually, orthographies can be successfully changed to reflect more modern language use when necessary, as happened in Inuktitut and Greenlandic. For now, the Alutiiq orthography seems ready for use, and *The Alutiiq Orthography* provides the necessary tools to use it. Kudos to all those involved.

REVIEW

WOMEN'S WORK, WOMEN'S ART: NINETEENTH-CENTURY NORTHERN ATHAPASKAN CLOTHING

Judy Thompson, 2013. McGill-Queen's Native and Northern Studies Series no. 68. McGill-Queen's University Press, Montreal. Paper, 307 pages, photos, line drawings, maps, index. ISBN 978-0-773541-59-7; \$59.95.

Reviewed by William E. Simeone

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Northern Athapaskan clothing is largely an unfamiliar subject. Northern Indians are seldom, if ever, seen in movies and have never, as far as I know, been photographed by Edward Curtis. Descriptions of Northern Athapaskans in aboriginal dress are scattered in obscure journals, academic monographs, and museum catalogs. Examples of clothing are found in museums spread around the world: some of the oldest in Finland and Russia. A Plains Indian chief in an eagle-feathered head-dress is a relatively common sight. Few, though, have seen a Northern Athapaskan chief in caribou skin tunic decorated with porcupine quills and smeared with red ocher, his ears and nose pierced, and his long hair parted in the middle, each lock rubbed with grease and red ocher, so that each strand was about the size of a finger, then gathered behind his head with a band of dentalium shells and powdered with swan's down.

Well, no one should have to wonder about Northern Athapaskan clothing again. Judy Thompson has compiled practically every conceivable reference to this topic, producing a model publication that combines lavish illustrations with detailed garment research and historical and ethnographic data. My favorite image, "Rat Indian[s] of Russian America drawn by themselves," shows a man with a huge head of hair and pierced nose and ears. Thompson focuses on clothing made and collected in the nineteenth century, although there are references to earlier and later times. Her stated goals are to bring attention to the central importance of women in the production of clothing; describe in detail technology, design, and decoration of

major nineteenth-century clothing styles; and reconstruct traditions in dress and self-adornment specific to particular Northern Athapaskan groups.

There are four chapters, an epilogue, and appendix. Chapter 1 provides an overview of traditional life and the importance of clothing in Northern Athapaskan culture. Prior to contact, Northern Athapaskans wore skin garments that covered them from head to toe summer and winter; painted and tattooed their faces; applied grease, ocher, beads, and feathers to their hair; and wore earrings, bracelets, and necklaces made from bones, beads, and shells. Clothing and personal adornment denoted social status or relations between individuals, and a person and his or her clothes were intimately connected. A piece of clothing could be manipulated to cause harm, predict the future, or cure illness.

Beginning in the nineteenth century, Northern Athapaskans began to transform their personal appearance as they became absorbed into the fur trade. Thompson identifies four trends in this transformation. First, old styles and materials, especially winter clothing, were often retained well into the twentieth century by older people, poor people, and those living more remotely. Second, people quickly abandoned traditional styles of personal adornment. Third, people adopted clothing cut along European patterns and made with foreign materials; and fourth, they developed totally new aboriginal styles combining new materials and designs. These include mocasins, coats, and dresses made from smoke-tanned hides and decorated with floral beaded patterns.

In Chapter 2, Thompson provides a how-to guide to the production of Athapaskan clothing. Traditionally this was a woman's domain. They prepared the hides, cut and sewed the garments, and added decoration. Women were judged on their sewing skills. In Upper Tanana culture, for example, a woman sewing with large stitches was called "rabbit woman" while one using finer stitches was "mouse woman." The latter was considered a good woman who would make money with her fine stitches.

Clothing was made from a wide variety of materials. Caribou skins were probably the most common, but clothing was also made from skins of hare, marmot, ground squirrel, mountain sheep, moose, salmon (used to make waterproof boots), and bear (including bear intestines made into rain gear). The use of bird skins was considered a sign of poverty in some groups. Sinew was used to stitch the clothing together, while bone, antler, claws, hooves, and teeth provided materials for tools, such as sewing awls and fleshing tools, and for decoration. Plant materials, such as rotten wood, were used to smoke skins, while bark was used to dye both skins and porcupine quills. Ochres were mixed with water and grease and applied to all variety of things, including clothing, bows, faces, and snowshoes. Prior to contact with Europeans most clothing was decorated with porcupine quills, and Thompson illustrates the variety of techniques used in quill decoration.

Tanning large skins from caribou and moose was a grueling process requiring considerable physical labor, know-how, and cooperation. Over a period of weeks or months hides had to be scraped, washed, soaked, and then softened with more scraping. Brain matter from caribou or moose, which coated and lubricated the hide protect-

ing it from water damage, decay, and stiffening, was an essential ingredient in the process. Sometimes hides were lightly smoked. The final product was something as soft as the supplest felt.

In Chapter 3, Thompson describes major clothing styles and analyzes and illustrates design elements. Northern Athapaskan clothing was designed for easy movement but maximum coverage against the cold in winter and hordes of mosquitos in the summer. Summer outfits came with gloves and a hood. Trousers had the feet attached so there was no opening for drafts or insects. Most summer clothing was made from tanned caribou hides with the hair removed. Winter clothes were cut similar to summer clothes but with the fur on. Thompson describes some of the most widespread fashions, beginning with tunics cut to a point and moccasin trousers. Two interesting features of these garments are their ubiquity and their sophisticated design. Tunics are three-dimensional. They don't lie flat on a table. The garment is cut with forward movement in mind, and the arms curve out. A fascinating addition to this chapter is the line drawings by Dorothy Burnham illustrating the construction of the clothing.

In the final chapter, Thompson describes dress and adornment traditions for twenty-three Northern Athapaskan groups. Some of the same ground is covered here, leading to a bit of repetition, but the chapter provides a sense of basic similarities in style while pointing out differences in detail. In an epilogue, Thompson closes the circle by describing efforts to pass on or revive traditional knowledge of clothing manufacture. In sum, Thompson has produced a useful and beautiful book destined to become the standard reference for Northern Athapaskan clothing.

REVIEW

KINGIKMI SIGUM QANUQ ILITAAVUT: WALES IÑUPIAQ SEA ICE DICTIONARY

Compiled by Winton Weyapuk, Jr. and Igor Krupnik, 2012. Arctic Studies Center, Smithsonian Institution, Washington, D.C. Paperback, 112 pages. For copies, contact the Arctic Studies Center at <http://www.mnh.si.edu/arctic/> or 202-633-1889.

Reviewed by April Counciller

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Weyapuk and Krupnik's *Kingikmi Sigum Qanuq Ilitaavut: Wales Iñupiaq Sea Ice Dictionary* was created to aid an Iñupiaq community to retain terminology used by generations of hunters and travelers. This truly collaborative project involved Iñupiaq elders, whalers, and community scientists along with professional linguists and anthropologists in a multiyear effort. Endorsed by the Native Village of Wales, the project received funding from the National Park Service's Shared Beringian Heritage Program, as well as the Smithsonian's Arctic Studies Center and the National Museum of Natural History, among others. This initiative was part of the larger Sea Ice Knowledge and Use (SIKU) project, in which scientists and indigenous communities from six nations were tasked with documenting sea ice terms in local languages and dialects.

The SIKU project takes place in a context of declining Native language use for many Alaska communities. As Weyapuk describes, language shift to English began with the introduction of new items into the daily lives of the Kinikmiut (people of Wales). Over time, English "gradually encroached upon and began replacing Iñupiaq as the...fundamental language" (p. 8). Rather than being used solely for word borrowings relating to modern life and western items, English has become the *lingua franca* for most community and home communication. This process has progressed until younger generations can sometimes understand few Iñupiaq environmental terms, despite the inexactness of the English language in describing the environmental conditions and dangers faced when hunting or traveling.

Endangered language communities faced with language shift often initiate terminology development to address lexical gaps, reduce the need for borrowing, and enhance the relevance of the heritage language in the lives of potential young speakers (Kimura and Counciller 2009). Terminology development has been primarily defined as new words creation, but often goes hand-in-hand with language documentation and dissemination of existing, obscure terms. The Alutiiq New Words Council on Kodiak Island, Alaska, has found that in addition to the creation of new words, elders and language learners desired strategic remembering of old words, due to the speed of overall lexical contraction (Counciller 2010). The need to remember old terms is clearly on the forefront for Wales community members, who feel that this information is especially relevant today when climate change creates constantly changing and sometimes hazardous conditions that require detailed observation and description.

While a dictionary is a document that describes the meaning of words, describing *Kingikmi Sigum Qanuq Ilitaavut* as simply a "dictionary" seems limiting. It is more of a topical *encyclopedia* in its comprehensive presentation on sea ice. A focus on the words themselves belies the environmental knowledge embedded in the language and the strong connection to visual cues and observation needed to accurately use these terms. Sections of the book are devoted to alphabetical listings of sea ice vocabulary, sea ice categories (organized by season, location, and function), annotated photographs of ice scenes and conditions (historical and contemporary), and essays, all of which

emphasize the importance and relevance of sea ice terms and knowledge. By mastering the words as well as the cultural environmental expertise embedded within them, younger generations of community members have greater tools to survive and thrive on the ice, even as it changes.

Although Weyapuk and Krupnik state that this book alone cannot help reverse Inuit language shift in Wales, it can be one of many tools used by the community towards language survival. This project and publication fit within *status planning* (Cooper 1989), a type of language planning affecting the functions and community spaces where a language is used, i.e., in hunting, traveling, and relating narratives of subsistence. The greater number of settings and functions where a language is the primary mode of communication, the greater the odds that language will be maintained (Fishman 1991). This is especially true when zones of language use involve families, the “nexus of intergenerational mother tongue transmission” (Fishman 1991:67). Although the presence of English is acknowledged as irreversible in today’s Alaska communities, *Kingikmi Sigum Qanuq Ilitaavut* demonstrates that a space can be carved out of the ice for the continued relevance of the Inuit language.

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REVIEW

LAND OF EXTREMES:

A NATURAL HISTORY OF THE ARCTIC NORTH SLOPE OF ALASKA

Alex Huryn and John Hobbie, 2012. University of Alaska Press, Fairbanks. Paper and ebook, 336 pages, photos, maps, index. ISBN 978-1-60223-181-8; \$29.95

Reviewed by Anne M. Jensen

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According to the preface, this book was written as a guide for people visiting the North Slope of Alaska. The authors' intent was to cover the entire North Slope, from Barrow to the Brooks Range, providing information on all aspects of the area's natural history in a format suited to the interested layperson. They do this extremely well for the Dalton Highway, but they do not fully address the remainder of the North Slope.

The book's organization is logical and easy to follow. The introductory chapter identifies concepts and provides Arctic-related definitions, leading into the rest of the book, which takes the reader on a North Slope tour from ground level up. The next three chapters cover geology: bedrock and glacial geology and permafrost phenomena. The fifth chapter reviews the three main physiographic provinces on the North Slope and ecological habitats associated with each.

The next four chapters focus on the plant kingdom. The mushrooms, lichens, mosses, and liverworts receive brief coverage, with the chapter on vascular plants being much longer. This makes sense, since most readers are more likely to notice and be interested in vascular plants.

Coverage of the animal kingdom begins with an extensive chapter on invertebrates, which is not surprising given the number of insects that any summer visitor to the North Slope will encounter. The illustrations are excellent, as is the explanation of freeze tolerance versus freeze avoidance. The next chapter covers fish. The authors concentrate on freshwater fish, with a focus on the fourteen species that are most widespread on the North Slope. This is followed by a one-page chapter on reptiles and amphibians. Since the only currently living member of these classes found on the North Slope is the wood frog, which occasionally makes an appearance, half of the chapter deals

with prehistoric reptiles. These arctic dinosaurs are quite interesting and their story is still unfolding. Many readers will wish to learn more about them.

Chapter 13 considers birds. The authors begin by stating that over 150 species of birds visit the North Slope annually. While this is technically correct, it seems conservative, since the standard species checklist for Barrow lists 185 species. This chapter shows the Dalton Highway corridor bias. Numerous bird species are pictured, often showing both sexes in multiple color phases and age classes. The eiders, though, are underrepresented, with only a single picture of two species, omitting the Steller's and common eider entirely. The only gulls referred to are those "common in inland habitats of the North Slope" (p. 191). Guillemots, which have been much in the public eye due to George Divoky's decades of study (including a *New York Times* magazine cover story in 2002), are omitted entirely, as are other coastal birds such as puffins.

In chapter 14, the authors discuss mammals. This chapter is especially good, although the choice of caribou and red fox as common megafauna of the North Slope seems odd, given the presence of moose, muskoxen, and wolves and the rather small size of red fox. Huryn and Hobbie do a good job of explaining lemming population cycles, a phenomenon that often confuses the general public. Their coverage of muskoxen is interesting. They speak of the eastern North Slope muskox herd as a true conservation success, while noting that the herd was reduced to less than half its former size by 2007–2008. They describe this as unexplained, although there seems to be considerable evidence that it was due at least in part to hunting by grizzly bears (Reynolds et al. 2002), a few of which had figured out that even in a herd muskoxen can be vulnerable.

The final chapter purports to describe the “prehistory” of humans on the North Slope from arrival through the middle of the twentieth century. Here things fall apart. Under any common definition, “prehistory” cannot be said to extend past the latter part of the nineteenth century on the North Slope. The discussion of dates is confusing. The authors state that all dates are given in calendar years, and then proceed to give all dates but those for Kavik and Neoeskimo as BP dates. I believe that these are calibrated radiocarbon dates, which for some reason they presented as BP rather than the conventional BC/AD for calibrated calendar year dates.

The authors decide to focus only on archaeological sites near the Dalton Highway, in order to “simplify a rich and complex prehistory” (p. 243). This led them to omit the precontact history of almost all current North Slope residents. They cover the Paleoindian tradition in two and a half pages, while the Arctic Small Tool tradition receives only half a page. The Maritime Eskimo (Birnirk, Thule, and Inupiat) are well covered, occupying over three pages. However, the coastal manifestation of this group receives only three sentences, despite far outnumbering inland dwellers at all periods, including the present. The rest of this section is devoted to the Nunamiut. The description of the Nunamuit is a good one, and the work of Simon Paneak is well described, although none of his publications are cited in the chapter bibliography. Had this book covered the Dalton Highway corridor instead of the North Slope, this chapter would have been a reasonable summary for a general book aimed at people traveling the road.

Given that the North Slope of Alaska is the size of the state of Minnesota, producing a natural history for laypersons in a size suitable for travelers is no mean feat. In most respects, this volume achieves its goal. In general the information presented seems accurate, although this reviewer was startled by the statement (p. 44) that the Inaru River only flows during spring snowmelt, since in her experience it sees boat traffic during the entire open water season and is too strong and deep to ford in most places. However, the authors have done the majority of their research on the North Slope in a relatively narrow area on either side of the Dalton Highway, between the Brooks Range and the Beaufort Sea. At times, they write as if the conditions that are typical in this region are typical across the North Slope. For example (p. 31), they state the plant biomass is between 160–370 g/m³ near the coast. From the map on the next page this is true near Prudhoe Bay, but in most areas where there are currently villages the map shows a

higher biomass of 370–850 g/m³. At times, I felt as if the volume might more appropriately have been titled “The Natural History of the Dalton Highway Corridor.”

The highway corridor bias is also apparent in the illustrations. With the exception of a couple of satellite images of Teshekpuk (Tasiqpaq) Lake and some images of lemmings taken near Barrow, almost every image in the book is from Toolik Field Station, Atigun Pass/Gorge, Galbraith Lake, the Ivishak River, the Kuparuk River, Happy Valley, Oksrukuyik Creek, or various locations along the Dalton Highway. Even the picture of a polar bear, a marine mammal who visits land near the coast on a very sporadic basis, is one of a very anomalous individual taken at milepost 297 of the Dalton Highway.

While the authors have an impressive photographic collection, one wishes that they had used more images borrowed from others who have worked in the area. In too many cases, the photographs are not particularly good or representative, and the general reader might have been better served with other images. For example, the winter arctic fox pictured has a number of atypical black patches and is a poor specimen of this beautiful animal. Additionally, the layout of the images is not always logical, with images sometimes separated from the text by several pages. This may be an unavoidable function of limiting the number of printed color pages, but it doesn’t make for easy reference while reading.

A more serious problem with the images relates to the maps. The last part of the book is essentially a driving tour of the Dalton Highway from Atigun Pass to Deadhorse, with references to numbers on three accompanying maps. The maps are a bit small, and it might have been better to split the area into five or six maps at a larger scale. More importantly, at least in the review copy, the first of the maps (covering the southern end of the Dalton Highway from Atigun Pass to Galbraith Lake) was replaced by a duplicate of the second map. The driving guide looks like it would be quite useful for anyone planning to drive the Dalton Highway. I would suggest it for that use. If one wants to understand human occupation on the North Slope, there are better sources of information.

REFERENCE

- Reynolds, Patricia E., Harry V. Reynolds, and Richard T. Shideler
2002 Predation and Multiple Kills of Muskoxen by Grizzly Bears. *Ursus* 13:79–84.