

NOTES FROM THE DIRECTOR

By William W. Fitzhugh

This past year the Smithsonian set out with a new leader, Secretary **Lonnie G. Bunch III**, installed on 16 June. Lonnie was catapulted to the position by his phenomenal success as founding director of the National Museum of African American History and Culture, creating the museum out of whole cloth beginning in 2005. The NMAAHC is a sensational success, engaging audiences that have never visited the Smithsonian. Before NMAAHC, Bunch served as director of the Chicago Historical Society (2001–2005) and in various positions at the Smithsonian before that.

The new Secretary has already indicated his emphasis on outreach and education, especially to under-served audiences. Recently he pitched in for a trial partnership with the Victoria and Albert Museum in London, which is building a new V&A East facility in Queen Elizabeth Olympic Park. The collaboration includes a Smithsonian exhibit space dedicated to the themes of people in the environment, sustainability, and adaptation, with a focus on youth education.

This year saw other important developments for the ASC, most importantly the signing of a new Memo of Understanding with the Anchorage Museum carrying us forward to December 2024. The content of the document is virtually the same as previously (see **Aron Crowell** on MOU in this issue), providing the ASC Anchorage office with space and administrative support for our research and education programs in return for

SI collaboration with Anchorage Museum projects and exhibition, including the *Living Our Cultures* exhibition. What has changed is the administrative structure on the SI side. The new document is no longer a straight NMNH-AM agreement. Recognizing the large stake in our Alaska programs, the National Museum of the American Indian is a co-signer. This change recognizes the larger role the Anchorage office is now playing across the Smithsonian, as you will recognize in the following reports from Aron Crowell and **Dawn Biddison**. We are grateful to **Kirk Johnson** and **Kevin Gover, John Davis**, the SI Office of the

General Counsel, and others who contributed to the new agreement. The Alaska office of the ASC was pleased to share news of the new MOU with the Smithsonian National Board (SNB) during its meeting and tour in Alaska this past July (see Crowell on SNB in this issue).

Other notable developments of the past year include the continued warming of the Arctic, now inching upward beyond “two

times faster than the rest of the world” and having major impacts on Arctic environments, peoples, and cultures, as noted in **Igor Krupnik**’s article on this year’s “Arctic Report Card.” The launch of the German *Polarstern* MOSAiC (Multidisciplinary drifting Observatory for the Study of Arctic Climate) drift expedition will give scientists their first chance to study the oceanography of the polar basin in a comprehensive and more controlled way, hopefully, than Nansen’s *Fram* drift in 1893–1896.

Closer to home, ASC has been busy with numerous projects. The narwhal exhibition closed at NMNH in January 2020. It will be sent off in June for two



Igor Krupnik completed his first year as Chair of the Smithsonian’s Department of Anthropology and received the SI Secretary’s Distinguished Scholar Award for 2019.

Photo by Libby Weiler

years as a redesigned SITES (Smithsonian Institution Traveling Exhibition Service) presentation with its messages about the still-mysterious and iconic Arctic ‘sea-unicorn’, climate change, and Inuit collaboration with scientists. Planning continues for a new SITES boreal forest show, as well as a novel Victoria & Albert Museum Smithsonian gallery. Our exhibition in Anchorage survived the November 30, 2018, 7.1 quake with flying colors—a tribute to the fine design and care taken by our NMNH and NMAI installers and conservators, several of whom returned for a week the following spring to assess collection status. Only a few pieces shifted in their mounts, while the cases suffered a few cracks (see “*Earthquake Repairs to the Living Our Cultures exhibition*,” *ASC Newsletter 26*: 8-10), 2019). Case repairs were completed swiftly, and the hall re-opened in time for the summer tourist season.

One of the highlights of the year was a December symposium organized by Igor Krupnik to commemorate the 150th anniversary of John Wesley Powell’s 1869 Grand Canyon expedition. Powell—the founder of the USGS, the BAE, and several other Washington-based organizations, had a very good year in 2019, as did his descendants, who took part in USGS re-enactments in Colorado and in D.C., as well as at the Smithsonian. Two days of talks and tours of the Cosmos Club reunited descendants, Powell scholars including **Kay and Don Fowler and Curtis Hinsley**, and others who met with SI staff for the first time in years.

Research proceeded a-pace. **Stephen Loring and Tony Jenkinson** documented ancient Maritime Archaic sites on Lake Mistastin in northern Labrador and **Bill Fitzhugh, Brad Loewen, and Erik Phaneuf** found new Basque land and underwater sites in St. Paul on the Quebec Lower North Shore, where they excavated an 18th-century Inuit house that had been attacked and burned. Igor was honored by receiving the Secretary’s Distinguished Scholar Award for which he presented an inspiring SI-wide lecture, Igor and Aron have been working hard over the last year to bring the Arctic Crashes volume to publication (now expected by June 2020). Igor also worked with **Martin Schultz**

at the Etnografiska Museet in Stockholm to explore an important historical collection from the Chukchi Peninsula assembled during the *Vega* expedition of 1878–1879. Aron and geologist **Chris Maio** (University of Alaska Fairbanks) with colleagues from UAF, Woods Hole Oceanographic Institution, and Texas A&M University published a geoarchaeological study of the Kenai Peninsula coast in the *Journal of Coastal Research* (see fieldwork account in *ASC Newsletter 23*:8-11, 2016), and Aron continued a study with biologist **Thomas Helser** (National Marine Fisheries Service, NOAA) on North Pacific ocean temperatures over the last 6,000 years, based on isotopic analysis of archaeological cod otoliths. **John Cloud and Bernadette Engelstad** took part in conferences on Tlingit history and cartography, and Canadian Inuit clothing art, respectively. Igor continued corralling Danish and Canadian colleagues for a forthcoming celebration of the Fifth Thule Expedition (FTE, 1921–1924), and with Aron Crowell, Stephen Loring, and Bernadette

Engelstad took part in the first FTE conference in Nome at the Alaska Anthropology meetings, the first of several events planned for the FTE centennial era.

A final note: In this issue, you will find that traditional boats are a recurring theme. Arctic watercraft have been popping up everywhere recently following our accessioning of an intact St. Lawrence Island skin boat (angyapik) to the NMNH collection two years ago. The accession was timely,

given the soon-to-be-released book, *Bark and Skin Boats of Northern Eurasia* by **Harri Luukkanen** and me in September 2020. And this NL issue includes several articles about skin boats from Alaska and East Greenland.

And as a ‘final’ final note, thanks to all who contributed to our work this year, including especially **Nancy Shorey** who facilitated much of what we do, assisted by **Zaborian Payne**, and **Michelle Reed**, our staff artist, **Marcia Bakry**, **Igor Chechushkov**, Anthropology Chair, Igor Krupnik, and Assistant Chair, **Laurie Burgess**, and the small army of volunteers, fieldworkers, and interns, some of whose activities you will read about below in their own words.



ASC contingent (Left to right: Igor Krupnik, Stephen Loring and Bernadette Engelstad) with Amy Chan (second from right) at the Alaska Anthropological Meeting in Nome. Photo by Amy Chan

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ASC ANCHORAGE, ALASKA OFFICE

A NEW SMITHSONIAN-ANCHORAGE AGREEMENT

By Aron Crowell

A new Memorandum of Understanding between the Smithsonian Institution and the Anchorage Museum, signed in July 2019 by **Kirk Johnson** (Director, National Museum of Natural History/NMNH), **Kevin Gover** (Director, National Museum of the American Indian/NMAI), and **Julie Decker** (Director and CEO, Anchorage Museum), provides a clear path forward for the Arctic Studies Center program in Alaska and extends a long and productive relationship that has been in place since 1994. A major milestone in the partnership was the opening in 2010 of *Living Our Cultures, Sharing Our Heritage: The First Peoples of Alaska*, a sweeping exhibition of Indigenous art and design curated by the Arctic Studies Center in collaboration with Alaska Native cultural advisers and featuring extensive heritage collections loaned by NMNH and NMAI. The multimillion-dollar exhibition was funded through a capital campaign by the Anchorage Museum and occupies an 8,000 sq. foot gallery in the modernist 2009 expansion wing of the museum, where the ASC's offices and research spaces are also located (see *ASC Newsletter* 17:3-5, 2010). Through a wide variety of public programs co-hosted by the ASC and Anchorage Museum, *Living Our Cultures* has been an active nexus for Alaska Native arts, cultural revitalization, educational media production, and collaborative research, as described in this and previous newsletter issues.

The new MOU extends the Smithsonian-Anchorage partnership until 2024 and calls for continued cooperation in facilities use, staffing, research initiatives, co-development of public programs, and engagement with Alaskan audiences and Indigenous stakeholders. It looks toward continuation of the *Living Our Cultures* exhibition, requiring extension of NMNH and NMAI collections loans that currently run through 2022, and the potential replacement of some objects with new Smithsonian selections. The exhibition's multimedia components (video, audio, website, and interactive kiosks) will also be upgraded with new hardware and digital technologies. With the new MOU in place, work on these priorities has already begun, and the ASC has launched new collaborative projects and partnerships.

In its statement of purpose, the 2019 MOU envisions “a programmatic and research partnership that highlights Alaska’s place in the international Arctic.” We were proud to present this shared vision to the Smithsonian National Board during their visit to Alaska in July, led by **John Davis**, Provost, and Undersecretary for Museums, Education, and Research. The new MOU commits the Smithsonian to engagement in the circumpolar North through the Anchorage partnership. This aptly reflects the Arctic Studies Center’s important and expanding alliances with the National Museum of the American Indian, the Smithsonian Center for Digital Learning and Access, the Smithsonian Center for Folklife and Cultural Heritage, the Smithsonian Institution Scholarly Press, and other units across the institution.

THE SMITHSONIAN NATIONAL BOARD—OFF TO ALASKA!

By Aron Crowell

The long days of mid-summer in southcentral Alaska—bright, anthropogenically warm, and hazy with smoke from distant forest fires—greeted members of the Smithsonian National Board on their arrival in Anchorage this past July for the board’s meeting in the country’s 49th and only Arctic state. The Smithsonian National Board (SNB) is comprised of corporate and community leaders from a wide variety of backgrounds and experiences. The board’s role is to advance the mission and priorities of the Smithsonian and the Smithsonian Secretary through advice, advocacy, and fundraising. Their mission in Alaska was to explore its natural and cultural milieus and gain an overview of Smithsonian activities in a region where the institution has been involved scientifically for over 150 years. The



Smithsonian Provost John Davis and National History Director Kirk Johnson en route to Aialik Bay to visit glaciers and an ASC archaeological research site.

Photo by Kristen Hunter

Anchorage office of the Arctic Studies Center (ASC) worked with the Office of Advancement to help plan the trip and was delighted to welcome this distinguished and adventurous group to Alaska on its fact-finding tour.

Sixty current board members, alumni, and guests led by former board chair **Robert MacDonald** embarked on the six-day itinerary, starting in Anchorage and continuing to Girdwood, Seward, Kenai Fjords National Park, Homer, and Kachemak Bay. It was a fast-paced immersion in history, culture, and science amid a natural setting of spruce-hemlock forests, glacier-clad mountains, and seacoasts teeming with marine life. The group included emeritus SNB board member **Betsy Lawer** as well as one of the most recent members to join, **Jo Michalski**; both are long-time Alaskans and leading philanthropic supporters of the Arctic Studies Center. **John Davis** (Provost and Undersecretary for Museums, Education, and Research) and **Rob Spiller** (Assistant Secretary for Advancement) traveled with the board, accompanied by staff from the Smithsonian Office of Advancement (**Charlotte Gaither, Ally Green, Joanne Leese, and Sarah Leibach**) and the NMNH Office of Advancement (**Kristen Hunter**). Four Smithsonian scholars who conduct studies in Alaska—

paleontologist **Kirk Johnson** (Sant Director, National Museum of Natural History, NMNH), ecologist **Dennis Whigham** (Senior Scientist, Smithsonian Environmental Research Center, SERC), historian **Theresa McCulla** (Curator, National Museum of American History, NMAH), and anthropologist **Aron Crowell** (Alaska Director, Arctic Studies Center, ASC-NMNH) gave talks, led field trips, and added a daily interdisciplinary dialogue to the board's experience.

Arrival day in Anchorage (July 21) included two field excursions—a geology tour by bicycle along the Cook Inlet coastal trail to Earthquake Park where a massive landslide destroyed 75 homes during the Great Alaska Earthquake in 1964, with Aron Crowell, and an introduction to boreal flora at the Alaska Botanical

Garden by **Dennis Whigham**. The Alaska Native Heritage Center, a Smithsonian program partner, hosted an evening reception and dinner with a lively introduction to Alaska by **Kirk Johnson** and an ANHC demonstration of Alaskan high kick, a feat of agility associated with the traditional Messenger Feast of northwest Alaska and performed competitively in the World Eskimo-Indian Olympics.

The Arctic Studies Center and the Anchorage Museum co-hosted the next day's program beginning with a welcome by Anchorage Museum Director and CEO **Julie Decker**, an SNB business meeting, and a luncheon presentation by Aron Crowell outlining the ASC's collaborative research and educational programs. Board members saw the ASC educational mission in action during an afternoon visit to the Smithsonian exhibition *Living Our Cultures, Sharing Our Heritage: The First Peoples of Alaska*. Hundreds



*Right: Rob Spiller, SI Assistant Secretary for Advancement, pans for funding at the 1898 Crow Creek Mine near Girdwood.
Photo by Bob Huret*

*Left: Robert MacDonald (SNB Chair) and Pam MacDonald on board the Orca Song in Aialik Bay, Kenai Fjords National Park.
Photo by Bill Ragland*



of masks, garments, tools, baskets, and carvings from the National Museum of Natural History and National Museum of the American Indian are on display, vividly representing Alaska's Indigenous arts and cultures. They also reflect the arc of Smithsonian history, from the 19th century when **Edward Nelson, William Dall**, and other scientists were dispatched from Washington to America's "Arctic Province" to collect and record cultural and natural history, to the present, when cultural treasures gathered during these expeditions have been returned to Alaska for access by Indigenous source communities.

In the new paradigm of museum practice, Alaska Native peoples are coequal partners with the

Smithsonian in reactivating these ancestral objects in support of post-colonial social and cultural renaissance. During the board tour of *Living Our Cultures*, members met artists who are part of the Alaska Native heritage movement and have taught Arctic Studies Center residencies and community workshops. Iñupiaq walrus ivory carver **Jerome Saclamana**, Yup'ik grass basket weavers **Grace Anaver** and **Sarah Brown**, and Ahtna beading and skin-sewing artist **Melissa Shaginoff** shared their work with the board and discussed the vital importance of helping younger people to know their cultures and identities. The intended takeaway from the day's program at the Anchorage Museum was that the Arctic Studies Center is working with Alaskan partners on programs that help to implement the Smithsonian's strategic plan for the 21st century, particularly the goal of utilizing the national collections as a meaningful part of community conversations, life, and learning.

The following two days continued the SNB encounter with unique Alaskan stories and a historical landscape created by Indigenous and immigrant cultures. **Theresa McCulla** conducted a live oral history interview for the *Smithsonian's American Brewing History Initiative* with brewmaster **David Short** over dinner at the 49th State Brewing Company in



Iñupiaq artist and teacher Jerome Saclamana describes a shaman figure carved from walrus tusk ivory. From left: Bob MacDonald, Nancy Hogan; faces obscured are Pam MacDonald, and Kristen Richardson.
Photo by Kristen Hunter

Anchorage, accompanied by samples so that all could taste the evolution from colonial working man's brown ale to contemporary craft brews. At Girdwood, the center of a historic gold mining district south of Anchorage, Theresa led an informative tour of the 1898 Crow Creek Mine, and over dinner at the Alyeska Hotel, she interviewed **Mitch Seavey**, a three-time winner of the *Iditarod Sled Dog Race*. The race is still run every year in March over the 1,150 backcountry miles between Anchorage and Nome,

following Alaska Native trade and travel routes that were used by miners who poured into the state during the Gold Rush. Seavey shared his knowledge of mushing history and brought along some charming present and future (still at the puppy stage) members of his dog team to meet the board.

Aron Crowell led a hike over parts of the Iditarod trail near Girdwood to Winner Creek, named for gold discoveries there, and pointed out devil's club, blueberries, and other forest plants used for food and medicine by the Dena'ina people of the upper Cook Inlet region. Some board members chose to visit the Alaska Wildlife Conservation Center near Girdwood, a sanctuary dedicated to preserving Alaska's wildlife through conservation, research, and education. A brief stop was made at Beluga Point on Turnagain Arm, the upper eastern branch of Cook Inlet named for the eponymous explorer's retreat in 1778 when huge



Waiting for snow and ready to go! Sako and Bill Fisher with Mitch Seavey's Iditarod sled dogs at the Alyeska Hotel in Girdwood. Photo by Nancy Hogan

tides and shallow waters signaled imminent danger to his vessels, as well as the fact that it was not a likely opening to the long-sought Northwest Passage. An important archaeological site at Beluga Point, used by Indigenous peoples from about 10,000 to 800 years ago to hunt the elusive white whales, represents earlier phases of Cook Inlet history.

An excursion on July 24 to the port town of Seward on the Gulf of Alaska coast, and from Seward by tour boat out into the spectacular oceanscape of Kenai Fjords National Park, was a high point of the SNB's Alaska journey. Long forested spines of sunken mountain ranges finger out into the Gulf, separated by deep ocean fjords. Glaciers descend to the sea from Harding Icefield, an alpine remnant of Pleistocene

glaciation formed over 30,000 years ago. The Gulf of Alaska is one of the most productive ocean bodies in the world, charged by upwelling coastal currents and explosive plankton growth during the 20-hour days of summer, feeding a surging web of marine life from copepods and jellyfish to pelagic fish, seabirds, and sea mammals. From the boat, on this brilliant calm day, an astonishing array of sea life could be observed, including murrelets, puffins, sea otters, harbor seals, Dall porpoises, sea lions, killer whales, humpback whales, and giant fin whales.

The Kenai Fjords coast was also an ancestral homeland of the Sugpiaq people, who are the southernmost Inuit. The Arctic Studies Center, in partnership with the National Park Service and the present-day Sugpiaq villages of Nanwalek and Port Graham in Kachemak Bay, has discovered and excavated dozens of archaeological sites along this coast, where Sugpiaq ancestors traveled by kayak, built seaside villages, and harvested shellfish, cod and other fish, seabirds, seals, and sea lions. At Aialik Bay, the SNB voyagers went ashore with Aron Crowell to visit a Sugpiaq village occupied during the late 18th

century, shortly after Russian sea otter traders arrived in the area. The site is situated just above the beach in a grove of trees, surrounded in late July by magenta fireweed flowers in brilliant bloom and bushes fruited with ripe blueberries and salmonberries. The group stepped inside faint depressions left by the old houses and food storage caches, handled animal bones, stone artifacts, and Russian trade beads found during the archaeological excavations and learned about the results of research at the site. One finding based on isotopic studies of cod bones from the midden is that ocean temperatures were 2-3° C colder in the late 18th century than at present, a clear signal of the ocean warming that has accompanied global climate change. The group also saw dramatic evidence of global warming at Holgate Glacier in Aialik Bay and at Exit Glacier near Seward, both now rapidly melting and retreating.

The final phase of the SNB expedition centered on the small fishing town of Homer on Kachemak Bay at the western tip of the Kenai Peninsula. Dennis Whigham and other scientists from the Smithsonian Environmental Research Center (SERC) have



Left to right: Members of the Expedition—the SNB, guests, and Smithsonian staff at Bird Point on Turnagain Arm (Cook Inlet) between Anchorage and Girdwood. The haze is smoke from wildfires on the Kenai Peninsula. Photo by Christine Ragland. Board members exploring onshore at a Russian-era Sugpiaq village in Kenai Fjords National Park, with fireweed in full bloom. Dennis Keller (L) and Charles Hogan (R) examine a stone harpoon blade at a Sugpiaq archaeological site in Kenai Fjords National Park excavated by the ASC. Photo by Kristen Hunter

worked for years at Homer in collaboration with local partners, including the Kachemak Bay National Estuarine Reserve (KBNER) and the Kachemak Heritage Land Trust. Research has focused on topics including wild orchid species native to Alaska, the essential ecological role of headwater streams where juvenile salmon rear before going out to sea, and the complex biological interactions that characterize tidal estuaries and near-shore coastal waters. Some board members visited one of the headwater research sites with Dennis, and others met with KBNER manager **Coowe Walker** and KBNER scientists who were conducting field studies at the mouth of the Anchor River, an unspoiled coastal estuary lush with marsh grasses and abundant invertebrates, shorebirds, and many species of fish. The researchers showed plants and fish they had sampled from the estuary and discussed indicators of ecosystem health. One concern is that rising water temperatures in the marsh are disrupting fish spawning and growth, with ripple effects that extend outward through the food web. At Kachemak Bay, Smithsonian-partnered scientific research is building a better understanding of interconnected marine, estuarine, riparian, and upland habitats and contributing to conservation efforts and public education. The board's time in Homer included a visit to the Pratt Museum with its excellent presentations of local history, culture, art, and natural history, and concluded with a celebratory dinner at the Tutka Bay Lodge on Kachemak Bay featuring local produce and *fruits de mer*, and reception at **Jo and Peter Michalski's** summer residence in Homer.

The Smithsonian National Board trip to Alaska brought about a stronger understanding of research, education, and connections to Indigenous and stakeholder communities that have resulted from the work of the Arctic Studies Center, NMNH, NMAI, NMAH, SERC, and other institutional branches and Smithsonian partners in the North.

The Arctic Studies Center appreciates this opportunity to share our work and extends warm regards to the SNB members who came on the trip: **Lisa Bennett, John Brock, Vin Di Bona, Edward Hintz, Nancy Hogan, Michele Hooper, Jennifer Walston Johnson, Dennis Keller, Todd Krasnow, Allan Landon, Dale LeFebvre, Cheryl Winter Lewy, Robert MacDonald, Kevin McGovern, Jo Michalski, Sarah Nash, Denise O'Leary, Jorge Puente, Jeffrey Records, Philip Ryan, Diana Strandberg, Naoma Tate, Michael Tennenbaum, and John Wilkerson.** We also thank SNB alumni members: **Peggy Burnet, Sakurako Fisher, Myra Hart, Steven Hoch, Judy Huret, Betsy Lawer, Michael McBride, Bill Ragland, Kristen Richardson, and Susan Ruddy.**

WHY ARE GLACIAL FIORDS SUCH GREAT PLACES TO LIVE?

By Aron Crowell

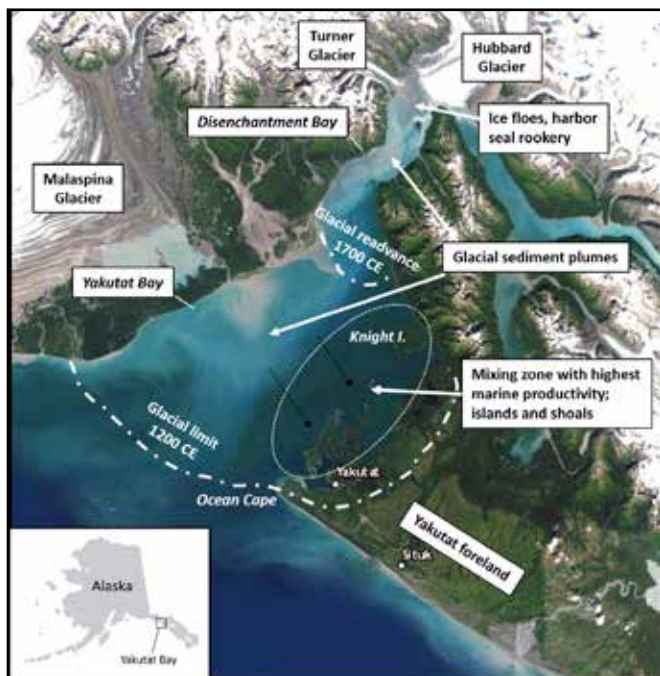
Glacial fiords of the Arctic and Subarctic attract human settlement because of their exceptional biological productivity. Tidewater glaciers and glacial streams discharge mineral sediments that enrich the marine food web and support abundant fish, ocean-feeding birds, and sea mammals, an effect that is amplified when glaciers are in retreat. Onshore, glacial retreat uncovers beaches, islands, and slopes that are colonized by plants and animals, followed by succession to complex, mature communities. Anadromous fish runs may be established in stream drainages within a few years of deglaciation, adding to the diversity of food resources.

At Yakutat fiord in southeast Alaska, glacial retreat starting in ca. 1200 CE opened a 60 km-long ocean inlet that was settled by Eyak, Ahtna, and Tlingit people from adjacent regions of the Gulf of Alaska. Ice limits in approximately 1200 CE and 1700 CE are marked by cross-bay moraines, the latter formed during a brief Little Ice Age re-advance of Hubbard Glacier.

Incoming human groups adapted their subsistence foraging economies to Yakutat's emerging cryogenic habitat and glacially influenced ecosystem, a process that has unfolded over eight centuries and continues to the present. Yakutat fiord provides an example of human colonization in a high latitude maritime setting with parallels to older prehistoric occupations along the fiord-indented coastlines of southern Alaska, British Columbia, the Canadian Arctic Archipelago, Labrador, Greenland, and Norway.

Contemporary residents of Yakutat fiord hold a deep store of historical and ecological knowledge about their traditional territory, where they harvest over 120 kg of wild foods per person each year including salmon and other fish, marine mammals, land mammals, invertebrates, migratory wildfowl, bird eggs, berries, and edible seaweeds. The Arctic Studies Center has conducted archaeological, paleoenvironmental, and Indigenous knowledge research at Yakutat since 2012 in collaboration with the Yakutat Tlingit Tribe, focusing on the community's long-term role in the fiord ecosystem.

The effects of glacial discharges on marine biology, and on patterns of Indigenous settlement and resource use, are significant. Cold, sediment-laden freshwater runoff enters upper Yakutat fiord (Disenchantment Bay) as calved ice and meltwater from Hubbard, Haenke, and Turner glaciers, and along the west shore of the lower fiord (Yakutat Bay) as a stream flows from the Malaspina and adjacent alpine glaciers. These discharges



Yakutat fiord showing modern glaciers, glacial limits at 1200 CE and 1700 CE, glacial sediment plumes, and the high productivity mixing zone on the east side of Yakutat Bay. Satellite photo courtesy of U.S. Geological Survey (earthexplorer.usgs.gov)

are greatest in summer when glacial melting increases. Glacial waters are cloudy with silt produced by abrasion of mountain bedrock and carry mineral nutrients such as ammonium, nitrogen, phosphates, and silicates into the fiord for uptake by plankton. Plumes of glacial discharge—readily visible in the satellite image—extend down the fiord from their sources for up to 20 km before dissipating in surrounding ocean waters.

As biological surveys of Gulf of Alaska fiords by Mayumi Aramitsu (US Geological Survey, Juneau) and her colleagues have shown, phytoplankton growth is limited by poor light penetration in the upstream portions of glacial plumes but increases exponentially in downstream mixing zones where the transported nutrients dissolve into ambient seawater. Phytoplankton productivity is highest on the east side of Yakutat Bay, where the tails of glacial plumes mix with clear, relatively warm ocean waters around morainal islands and shoals between Ocean Cape and Knight Island. High primary productivity in this area boosts the entire food web, resulting in a proliferation of copepods and other zooplankton, euphausiids (krill), invertebrates (clams, cockles, mussels, crabs), forage fish such as herring and capelin, and larger species including cod, halibut, and salmon. Seabirds and sea mammals, including harbor seals, sea otters, and harbor porpoises feed in these waters. Because the area is so rich in resources, it is colloquially known as the “icebox” by

Yakutat residents, who harvest a large portion of their marine subsistence foods there.

In contrast, the silty waters of Disenchantment Bay have low primary productivity but offer a highly concentrated human food supply during several months of the year. Nearly 2,000 harbor seals (*Phoca vitulina*) inhabit the bay during May and June when females give birth and nurse their pups on ice floes calved from the glaciers. The seal population in Yakutat fiord was historically much higher than at present—at least ten times as great prior to a crash in the 1970's—and hunting at the glacier's edge has always been a key subsistence strategy.

Glacial influences are also primary drivers of terrestrial fiord ecosystems. As **Alexander Milner** (University of Birmingham) and co-researchers including **F. Stuart Chapin** (University of Alaska, Fairbanks) have shown, biological productivity on land areas in deglaciating fiords is influenced by the amount of time since the withdrawal of the ice, allowing for stream and forest succession, and by distance from the present glacial front, where low temperatures inhibit ecosystem progression. The Yakutat foreland near the mouth of the fiord is an ancient and highly productive forest-wetlands habitat that was not affected by recent glacial advances and has been ice-free and above sea level for at least 1,500 years. Streams host large runs of salmon and other anadromous fish, and moose, deer, bear, marten, beaver, and other game animals are abundant in the old-growth spruce and hemlock forests. Modern subsistence fishing and hunting are concentrated on the foreland, with comparatively little use of younger and less productive forests that were established along the shores of the fiord as the glaciers retreated. Disenchantment Bay is the most recently uncovered area and is chilled by its proximity to Hubbard Glacier; here, there are poorly developed soils, few trees, and brushy vegetation dominated by alders and other plants typical of early forest succession. Even the intertidal zone is depauperate due to heavy silt and scouring by icebergs.

Glacial history and the glacially influenced distribution of subsistence resources in Yakutat fiord are reflected in the locations of ancestral settlements, including year-round villages and hunting camps.

The progression of deglaciation is reflected in the ages of archaeological sites, with several of the oldest villages located near the mouth of the fiord and on the Yakutat foreland (established cal. 784–1410 CE). Two villages were built on Knight Island in about cal. 1450 CE following deglaciation of the middle section of the fiord and sealing camps in Disenchantment Bay were not used until the 18th–19th centuries CE after Hubbard Glacier pulled back from its 1700 CE re-advance. All

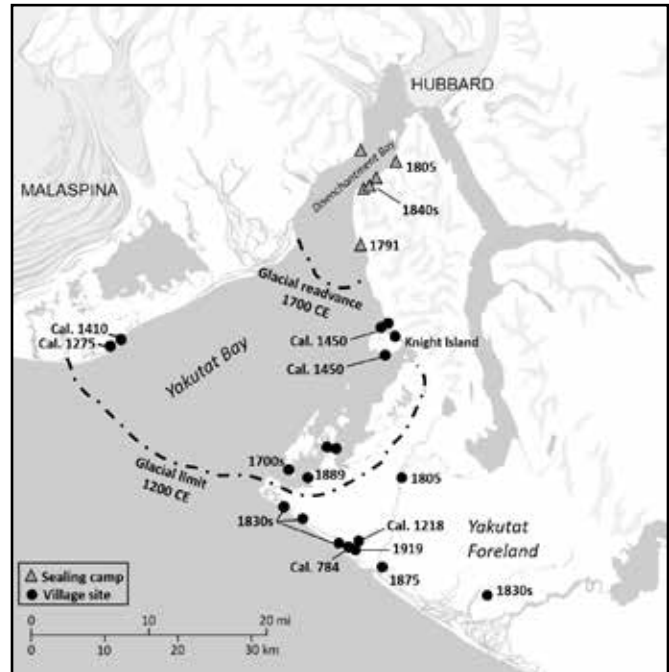
19th and 20th-century historic village sites were located in the lower fiord or on the foreland. Considering the spatial distribution of village sites apart from their dates, it is notable that almost all were located either in the highly productive marine mixing zone south of Knight Island on the east side of Yakutat Bay or on the adjacent Yakutat foreland where terrestrial resources are most abundant.

It thus appears that two combined influences—earlier availability for settlement during the glacial retreat and greater resource diversity due to glacial influences on ecosystem structure—have resulted in the clustering of village sites in the proximal geography of the fiord. In contrast, Disenchantment Bay, which was deglaciated last and is far less diverse in subsistence resources due to its turbid waters and low primary productivity, was unsuitable for settlement except for seasonal hunting camps used to exploit the harbor seal rookery.

To what extent do these patterns of human settlement and resource use characterize the larger Gulf of Alaska (GOA) coast, where scores of fiords from Prince William Sound to the Alaska Peninsula were carved during the Late Glacial Maximum? Many are still occupied at their heads by tidewater or grounded glaciers that contribute mineral nutrients to the marine ecosystem, and a number support ice floe harbor seal rookeries including Glacier Bay, Icy Bay, Bering Glacier, Grosvenor Glacier, College Glacier, Barry Arm, Surprise Glacier, Aialik Bay, Northwestern Fjord, and McCarty Fjord. To explore this topic, a GIS analysis was conducted to examine the distributions of maritime subsistence resources (25 categories of fish, sea mammals, and birds) along 17,000 km of continuous GOA coastline between Prince William Sound and the western Alaska Peninsula, compared to distance-weighted levels of access to these resources from all known coastal archaeological sites in the study area, a total of 1,959. For purposes of the analysis, the shoreline was divided into 6,800 2.5 km-long segments.

The study demonstrated that the outer portions of fiords generally offer greater diversity of marine resources than their inner reaches, as at Yakutat. This effect is multiscale, applying to very large features such as Cook Inlet and Prince William Sound as well as more localized coastal involutions. It is likely that the stimulative downstream effects of glacial nutrient plumes are one basis of this pattern, although upwelling at fiord mouths caused by tidal currents (e.g., Cook Inlet) or turbulence over morainal entrance sills (e.g., Glacier Bay) can also stir up mineral nutrients from the ocean bottom and enrich productivity in outer fiord areas.

A second finding was that the number of archaeological sites on any segment of the coast is highly correlated with “resource richness”—that is, the total number of



Archaeological sites at Yakutat fiord including villages and sealing camps. Site dates are in the Common Era (CE) and represent earliest known occupation. Calibrated radiocarbon dates are prefixed by “Cal.”; others are based on historical or oral data.

harvesting locales for all species that can be accessed along that segment. Resource scores ranged from 0 to 21, and a threshold effect was discovered; out of 856 coastal segments where sites were present, 776 (90.6%) had richness scores of 10 or greater. Although the analysis was not fine-grained enough to be definitive on this point, most sites with local access to ten or more resources were probably year-round villages, strategically situated to maximize diverse harvest opportunities and minimize logistical costs, whereas sites located in zones with low resource diversity (e.g., inner fiords) were most likely seasonal camps where the focus was on intensive harvesting of a single high-value resource such as seals or salmon.

The clustering of archaeological village sites in more anciently deglaciated and resource-rich zones near the mouths of fiords, combined with seasonal hunting camps in zones of low biodiversity, both observed at Yakutat, thus appears to be a general pattern across a large swath of the southern Alaskan coast and may well apply to fiord systems in other regions of the Arctic and Subarctic. Since the beginning of the Holocene, deglaciating fiords have offered a broadly consistent type of cryogenic habitat for human settlement, with similar opportunities and requirements for cultural adaptation and niche construction. In other words, fiords are great places to live if you know how.

SMITHSONIAN FUNDS ASC LEARNING LAB SITE FOR ALASKA SCHOOLS

By Aron Crowell

The Alaska office of the Arctic Studies Center, in partnership with the Smithsonian Center for Learning and Digital Access (SCLDA), received a \$52K Smithsonian Youth Access implementation grant to build a curated space on the Smithsonian Learning Lab where teachers and students in Alaska and across the nation will find a trove of collaboratively produced learning resources highlighting Alaska Native cultures, arts, and lifeways. The CIRI Foundation and generous private donors in Alaska provided a required 100% match to this competitive award from the Smithsonian's Office of the Associate Provost for Education and Access (APEA), made possible by an endowment from the **Bill and Melinda Gates** Foundation. The one-year grant will run through October 2020.

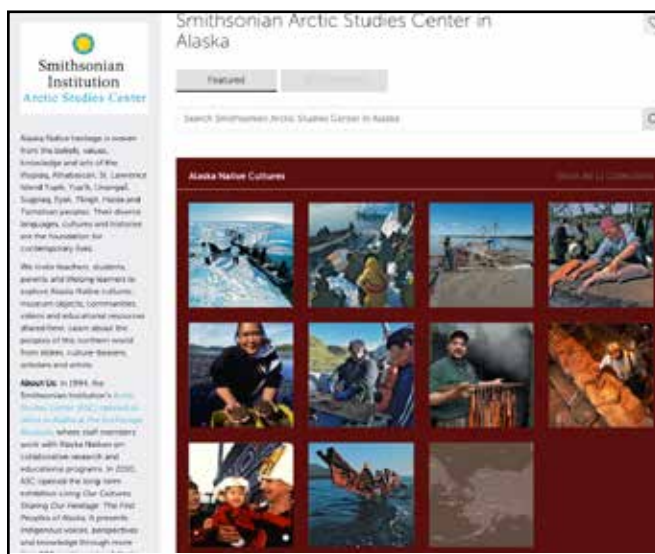
Through the project, entitled *Digital Access to Community Knowledge and Smithsonian Collections for Alaska Native Education*, hundreds of videos, photographs, transcripts, object records, and essays reflecting two decades of Arctic Studies Center collaborative heritage work in Alaska will be posted on Learning Lab, an innovative gateway to Smithsonian collections that received a 2019 Webby award for *Best Education Website* from the International Academy for Digital Arts and Sciences.

Learning Lab is building toward 100,000 registered users and has been adopted by state educational systems across the U.S. The Alaska Learning Lab project, with its unique focus on linking Indigenous knowledge to museum collections, will advance Smithsonian strategic goals for digital outreach and collaboration and meet critical educational needs in Alaska's underserved rural schools. SCLDA Director **Stephanie Norby** suggested the idea of an Arctic Studies Center proposal to the Youth Access Grant program and has championed the Alaska Learning Lab project to Smithsonian leadership, including Secretary **Lonnie Bunch**.

Alaska Learning Lab will feature elders' discussions about ancestral objects in collections of the National

Museum of Natural History and National Museum of the American Indian, and Alaska Native artists, demonstrating how to make traditional designs such as bentwood hunting hats, porcupine quill embroidery, seal intestine clothing, fish skin bags, walrus ivory carvings, cedar bark baskets, grass bags, and moosehide clothing, all by applying Indigenous knowledge to materials from the land. In addition, there will be object-centered lessons in Alaska Native languages taught by fluent speakers; talks by Indigenous scholars on culture, arts, and history; ASC-produced curricula designed to meet Alaska state standards; and new classroom learning experiences co-developed with Alaska Native teachers.

This large and growing portfolio will be searchable and richly interconnected on the new site. While most of these media resources have previously been offered in the *Living Our Cultures* exhibition and on the Smithsonian Arctic Studies Center YouTube channel, *Living Our Cultures* YouTube playlist, and *Sharing Knowledge* website (<https://alaska.si.edu>), Alaska Learning Lab will bring the entire collection together on a single, classroom-tested platform. Learning Lab has been extensively evaluated for ease of use and educational impact and is backed by technical and teacher support from SCLDA.



Landing page of the Alaska Learning Lab site at <https://learninglab.si.edu/org/sasc-ak>. Visit and explore!

As the project gets underway, ASC museum specialist and educational producer **Dawn Biddison** is working with SCLDA program manager **Tracie Spinale** to design the Alaska site, which can be seen under construction at <https://learninglab.si.edu/org/sasc-ak>. Resources are grouped under the broad headings of "Alaska Native Cultures," "Community Collections," "Community Videos," and "Educational Resources" in a format that invites student exploration and provides educators with materials for curriculum building. The site is also an entry point for searching all Alaska-related content at the Smithsonian, with the potential for exciting discoveries among the 1.6 million digital records that are available from 19 different museums and six research centers. Learning Lab links to these resources through the Smithsonian's vast Enterprise Digital Asset Network (EDAN).



*A twined grass bag takes shape in the hands of a Yup'ik student at the 2019 Quinhagak weaving workshop.
Photo by Jackie Cleveland*



Jacki Cleveland (Yup'ik) showing the open-weave, twined grass bag she made during the Material Traditions workshop in Quinhagak. Photo by Wayde Carroll

The Youth Access Grant will support co-development during 2020 of three new Community Collections for the Learning Lab site. Dawn will work with rural teachers to select resources and assemble lessons for their students. The first of these, with Yup'ik teacher **Dora Strunk** and colleagues in Quinhagak, Alaska will build on the Arctic Studies Center's recent basketry workshop in the community, taught by artist **Grace Anaver** (see *Yup'ik Twined Grass Baskets: Renewing an Ancestral Art*, *ASC Newsletter* 26:6-8, 2019). The high school-level curriculum will be a multidimensional exploration of basketry-related Indigenous knowledge, artistic traditions, and STEM topics (sciences, technology, engineering, and math). For example, grass basketry is a sustainable technology using locally sourced, renewable materials which are biodegradable and leave no carbon footprint. It relies on ecological knowledge of the tundra where grass used for baskets is collected, now influenced by climate change which has altered when harvesting can occur. Grass bags and baskets are engineered objects, designed in various shapes and sizes for different purposes and twined with knots, twists, and spacings that meet specific technical requirements based on underlying principles of topology. Grass bags and baskets are permeable to air and when used as food storage containers preserve foods with less danger of spoilage than plastic bags, where anaerobic bacteria (even those causing botulism) may develop. Each of these aspects is open to hands-on experiments and field study. The curriculum will incorporate both Smithsonian and local resources including images and artists' explanations of twined grass bags and baskets; instructional weaving and grass harvesting videos from the 2019 workshop; and ancestral bags and baskets excavated by archaeologists at the Nunalleq archaeological site, now housed at Quinhagak's cultural center.

Once the basketry curriculum has been completed Tracie and Dawn will observe and assess its classroom implementation at Quinhagak (planned for April 2020) and gather feedback from teachers and students. In the following months, additional Community Collections projects focusing on fish skin, moose-hide, and porcupine quill will be developed, exploring the uses of these traditional materials in Alaska Native technology and design. The final product of the current Youth Access Grant will be a rollout plan to publicize the new Learning Lab site statewide, aiming for its eventual adoption in a majority of Alaska's 52 school districts. Additional funding and partners will be sought to implement this expansion plan in 2021 in cooperation with SCLDA and the Alaska Department of Education. The National Science Foundation's Navigating the New Arctic program is one potential source of funding for the development of STEM curricula on the Alaska Learning Lab site, so stay tuned for new developments in the coming year.

THE DENA'INA QUNSHA PARKA: A COLLABORATION WITH LAKE CLARK NATIONAL PARK AND PRESERVE

By Dawn Biddison

In July, Cultural Anthropologist **Karen Evanoff** and Museum Curator **Kathryn Myers** of the Lake Clark National Park and Preserve (LCNPP) contacted **Dawn Biddison** about planning for a *Dena'ina Athabascan* women's life history project to document the creation of a qunsha (Arctic ground squirrel) parka from start to finish by Dena'ina women—making snares, snaring the squirrels, prepping the skins, making the parka—for the Lake Clark Museum collection. Based on



Dena'ina elders Pauline Hobson, Butch Hobson, Aggie Alexie, and Helen Dick discuss a qunsha ("ground squirrel parka") from the Lake Clark National Park and Preserve in the Community Room of the Living Our Cultures exhibition at the Anchorage Museum. Photo by Dawn Biddison

their familiarity with the Arctic Studies Center (ASC) program series *Material Traditions*, they initially asked for advice on logistics and detailed video documentation, then after a discussion meeting, invited ASC to collaborate on the project.

Research began in October with video documentation of a two-day workshop held in the Community Room at *Living Our Cultures* exhibition at the Anchorage Museum. Facilitators Karen and Katie were joined by Dena'ina elders **Helen Dick**, **Aggie Alexie**, **Pauline Hobson**, and **Butch Hobson**, along with Dena'ina sewers **Michelle Ravenmoon** and **Amy Hedlund**. A qunsha parka made by **Anesia Zackar**, qunsha snares, and a sewing case from the LCNPP collection were on hand to examine and explain. During the workshop, participants discussed making and setting snares, techniques for tanning squirrel skin and making parkas, and values and beliefs related to harvesting qunsha. Conversation then moved on to plans for harvesting qunsha and processing skins and meat at a camp with youth in the summer of 2020, and the values along with techniques to be taught. Dawn will provide project management and video documentation and editing for the summer camp work, and for the next phase of the project when the qunsha parka will be sewn.

INUIT ARTIST RESIDENCIES: A PARTNERSHIP WITH THE INUIT ART FOUNDATION

By Dawn Biddison

Building on introductory conversations during the October Inuit Studies Conference in Montreal with **Dawn Biddison**, a new partnership has begun at the Alaska office of the Arctic Studies Center with the



Newfoundland media artist Glen Gear painting the 8' x 26' mural Ommatik in Ottawa, Ontario, 2018. Photo by Barry Pottle; courtesy of the artist

Inuit Arts Foundation (IAF), led by Executive Director and Publisher **Alysa Procida** and Editorial Director **Britt Gallpen**. IAF “seeks to empower and support Inuit artists' self-expression and self-determination, while increasing the public's access to and awareness of artists' work” and “is the only national organization in Canada that supports Inuit artists in any discipline to increase visibility and opportunities.” IAF is the publisher of *Inuit Art Quarterly*, which features Inuit writing about their arts and online presents artist pages with biographies and images of their work, to help them advance their career opportunities. The partnership—with the working name *Circumpolar Exchanges*—plans to bring Canadian Inuit artists to Alaska and Alaska Native artists to Canada for individual and collaborative work, and for opportunities to foster new relationships between Inuit artists, organizations and communities.

The first visiting artist will be **Glenn Gear** in January 2020. Glenn is an animator, filmmaker, and visual artist from Newfoundland, now based in Montreal. He finds inspiration by exploring his identity as an urban Inuk with ancestral ties to Nunatsiavut. For his animated short films, Glen utilizes collage and archival materials to explore issues of “individual and collective history, the exchange between Indigenous and settler populations, folklore, gender, and archival material.” In addition to studying objects from the *Living Our Cultures* exhibition and Anchorage Museum collections, Glen will have open studio hours and give a lecture. Five of his short films will play in the exhibition throughout January. During his two-week visit, Glen will set up his portable animation studio for working in the archaeology lab, and he will meet with local Alaska Native artists and tribal organizations.

POLAR LAB: COLLECTIVE

By Dawn Biddison

Polar Lab: Collective is a program that provides emerging Alaska Native artists with an introduction to museum collections research through the up-close study of NMNH and NMAI objects in the *Living Our Cultures* exhibition and of the Anchorage Museum collections. This experience advances their development as artists and strengthens the relationship between Alaska Native artists and museums through increased access to staff and collections. Developed by **Dawn Biddison** in partnership with **Monica Shah**, Director of Collections at the Anchorage Museum, artists are selected annually through open-call application and funded with an honorarium and travel costs.

The program hosted two artists in 2019. **Jennifer Angaiak Wood** is a Yup'ik artist, born and raised in Fairbanks and currently residing in Seattle. Her family's home village is Tununak, where she spent summers while growing up. She is represented by the Stonington Gallery of Seattle, and you can see examples of her work online. Jennifer started carving masks in high school, which is her primary medium: "My concepts are always founded in historic Yup'ik masks, though I frequently add non-traditional materials and address modern concerns through my work. With this approach, I seek to honor and respect my ancestors' work, but it is also important for me to be able to express my identity and inner world as a contemporary Native artist." She wanted to study the museum collections to again have the first-hand experience she once had at the Burke Museum: "There is something dramatically different in seeing and holding



To Be Who You Are, a mask made by Yup'ik artist Jennifer Angaiak Wood. Photo courtesy of the artist



An ulu with a seal-shaped handle, carved by Willard Church of Quinhagak, Alaska. Photo courtesy of the artist

objects myself, and it is difficult to put into words how differently I felt in those moments, to not only look at the items as works of art, but also have priceless connections to the hands of my ancestors. I could see the tool marks, the ways in which pieces were fit together."

Willard Alas'kuk Church is a Yup'ik artist who resides in Quinhagak, a village located on the south bank of the Kanektok River. Willard learned to carve in high school but set that aside to support and raise his family. In 2017 and at the age of 53, he started making uluat (crescent-shaped knives) in order to make an income while remaining in his village. Willard re-taught himself how to make an uluaq from memories of watching his late grandparents and has begun to teach his son. His interests expanded to fur skin-sewing and to making harpoon heads and throwers, and he sought to study the museum collections in order to learn more about skin scrapers, adzes, wooden spoons, and bentwood bowls which he plans to start making next. "What I hope to gain is better insight into how our ancestors back in their time made the tools, clothing, and other everyday things that they needed to survive in our homeland. From looking at artifacts found at the Nunalleq archaeology site, I can see that the people back then were highly skilled, which amazes me since their tools must have been very primitive compared to what we have available to us today. The archaeological work being done here in my village has been a great inspiration for me."

Prior to their visit, artists spoke with Dawn and Monica to discuss their interests and to select objects for study. Over two days, they closely examined pieces taken off exhibit and from collections and spent time with Anchorage Museum archives staff for additional research. The artists received object photos and documentation, links to online resources for Alaska Native collections and archival photographs, and information about artist opportunities at other museums. You can view a short video about the program's first participant, *Iñupiaq* performance artist **Allison Warden** (<https://polarlab.anchagemuseum.org/projects/polar-lab-collective>).

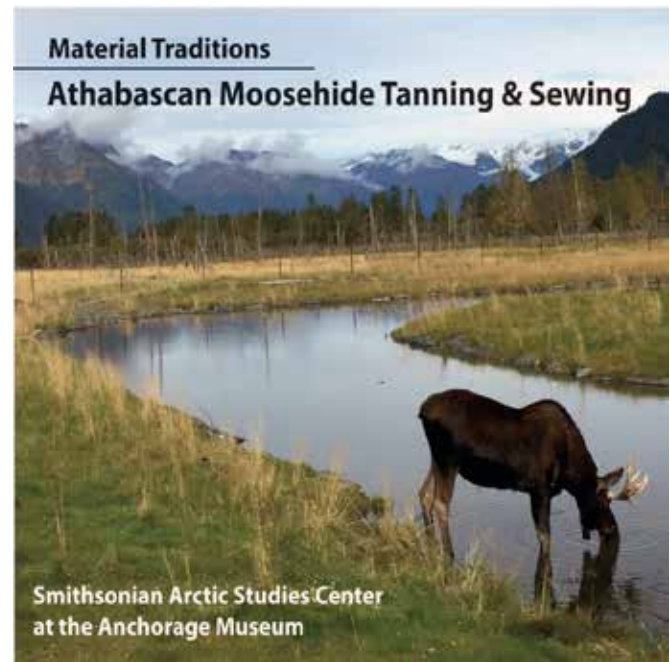
NEW MEDIA

By Dawn Biddison

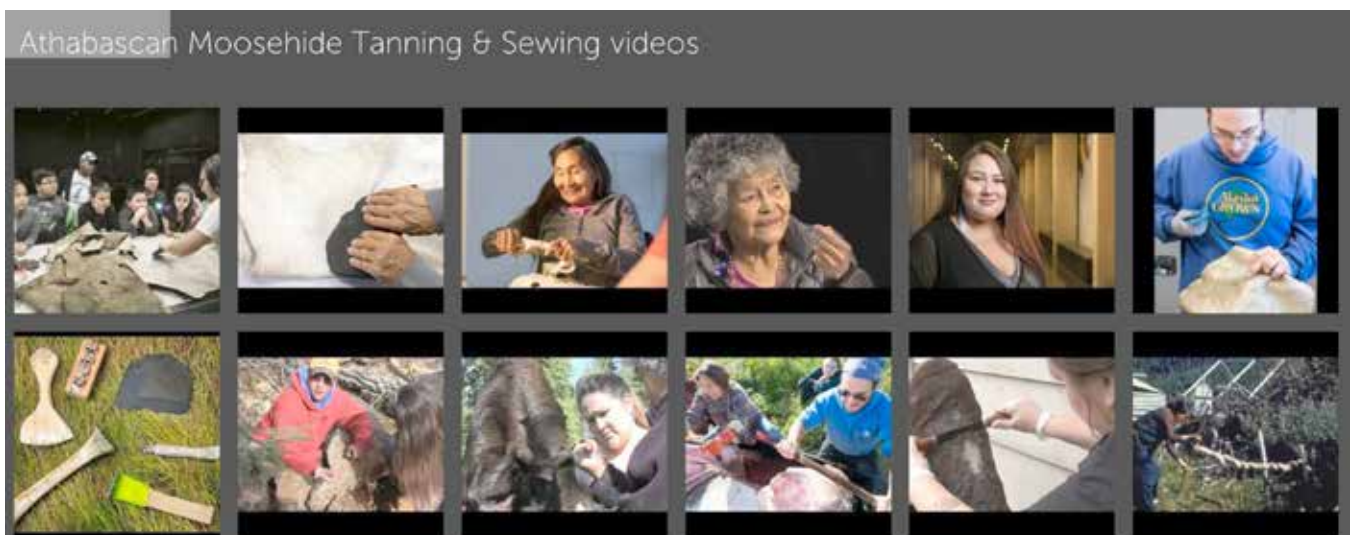
The four-disc DVD set *Material Traditions: Athabascan Moosehide Tanning and Sewing* has been completed and distributed to Athabascan participants, artists, schools, and organizations; to Alaska-wide schools, libraries, archives, and museums; and to selected national and international museums. The twenty-three, tightly edited videos are from fieldwork and interviews conducted by **Dawn Biddison** from September 2017 to June 2018, which was described in the last two issues of the *ASC Newsletter*. The footage includes interviews with key collaborators **Helen Dick** (Dena'ina Athabascan elder), **Jeannie Maxim** (Ahtna Athabascan elder), **Joel Isaak** (Dena'ina Athabascan artist) and **Melissa Shaginoff** (Ahtna Athabascan artist) and the information needed to tan a moosehide from start to finish, including tools; Ahtna and Dena'ina techniques for dehairing and scraping clean; multiple stages of wringing, washing, smoking and softening; making a yoke (regalia), tunic, and silverberry beads; Ahtna and Dena'ina vocabulary; and an extensive list of published resources. These videos are available on the YouTube channel *Smithsonian Arctic Studies Center Alaska* (<https://www.youtube.com/channel/ucnpcltx--kqjasu7zxsuwafa>)

The next media under production will be footage from the most recent *Material Traditions* program on grass harvesting, processing, and open-weave

twining in Quinhagak (see *Yup'ik Twined Grass Bags: Renewing an Ancestral Art*, *ASC Newsletter* 26:6-8, 2019). Research and video documentation during three fieldwork trips began in April and finished in August, and editing began in February 2020.



Cover of the DVD set *Material Traditions: Athabascan Moosehide Tanning and Sewing*. Photo by Dawn Biddison

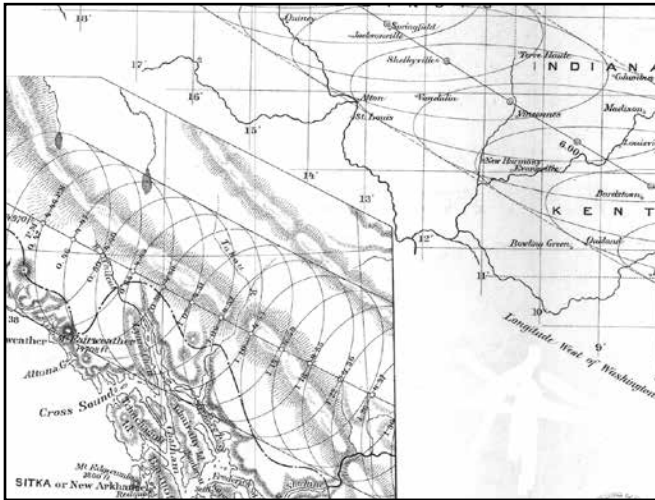


Landing page for the "Athabascan Moosehide Tanning & Sewing videos" on the Learning Lab site at <https://learninglab.si.edu/org/sasc-ak> in the "Community Videos" section. Video sets from all other *Material Tradition* programs are posted there.

NEWS

OUR TRAILS BRING US TOGETHER

By John Cloud



The path of eclipse totality included both New Harmony, Indiana, and Klukwan, Alaska.

A remarkable conference and a host of related events took place on October 24–28, 2019, in Whitehorse, the capital of the Yukon Territory, and Haines Junction, Y.T., as well as in Klukwan and Haines, Alaska. The different sites were spread over hundreds of kilometers, which reflected the impressive geographies of what has become known as the Kohklux maps, drawn in 1869 in Klukwan, on the Chilkat River, by the Tlingit wolf moiety clan leader with many names, including **Kohklux**, and his wives **Tu-eek** and **Kaatchxich**, both Raven moiety leaders, along with **George Davidson**, of the US Coast Survey. The Kohklux maps are now considered among the masterpieces of 19th-century cartography, well worthy of reconsideration in 2019, the 150th anniversary of their creation.

The Historical Context of the 1869 Kohklux Maps

George Davidson and most of the rest of Coast Survey personnel on the Pacific coast returned to the east coast in 1861 to fight the Civil War, scientifically. Amongst other matters, the Survey began mapping vast areas of the American interior, not just the coastal margins, which was their foundational arena. There was a hiatus in Survey leadership until 1867, when their great leader, **Alexander Dallas Bache**, who had been physically and mentally incapacitated while overseeing defenses around Philadelphia, finally died. Davidson and his staff then returned to San Francisco, the Survey headquarters on the Pacific coast. Davidson had barely arrived when he was sent north on a

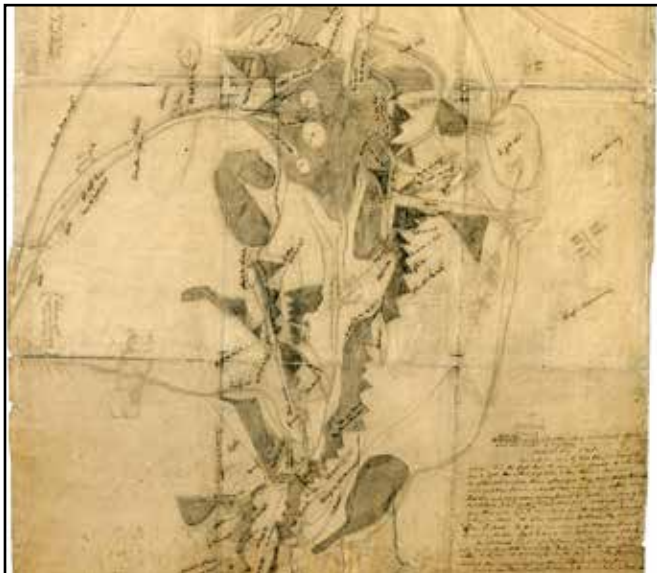
US Navy steamship to evaluate the proposal of the Russian American Company to sell the vast lands they purported to own—Alaska. Davidson’s goal was to travel to New Archangel (Sitka), the capital, to meet with the Russians and evaluate the situation.

Davidson completed his tasks, which included receiving a great treasure trove of Russian maps and charts, integral to the proposed sale.

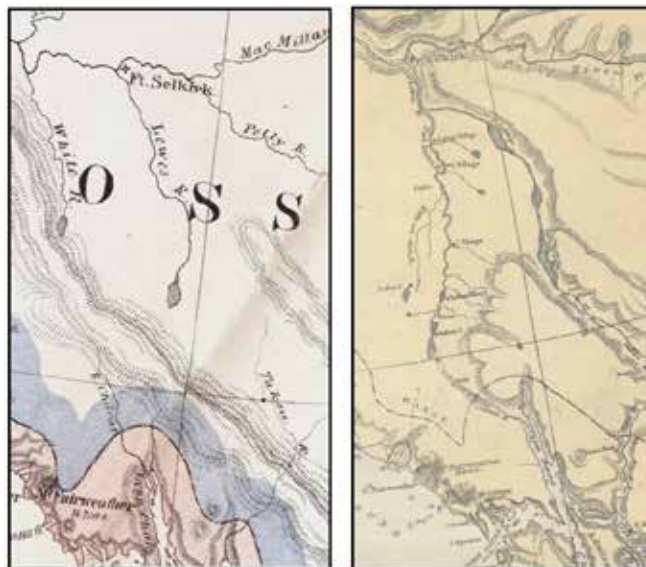
But he also made a side trip between the islands of Southeast Alaska north to the Lynn Canal, to the mouth of the Chilkat River, to meet the powerful Tlingit leader **Kohklux**. There was to be a total eclipse of the sun two years, hence, in 1869, and the path of totality included the Chilkat River valley. Davidson wanted to observe the eclipse, and he knew that the social arrangements for this were at least as critical as the logistical details. In this, he was building upon his own formative experiences in the beginning of his Survey career, spending winters with the family of his mentor, **Robert Fauntleroy**, who lived in the utopian socialist community of New Harmony, Indiana. The citizens of New Harmony were sympathetic to American Indians, strong supporters of rights for women, and fervent abolitionists opposed to slavery. Kohklux and Davidson connected, and the plan was made for Davidson’s return in 1869 (see *J. Cloud, 2012, Expedition 54(2)*).

By the time Davidson returned, in late July 1869, Russian America was Alaska, and the American military substituted for the oppressive Russian masters. Kohklux was to be summoned to Sitka to await Davidson’s arrival, which the US Army interpreted as an order to arrest Kohklux. Great disorder ensued. Davidson got Kohklux out of jail, and he refused the Army’s offer of a military escort to Klukwan. Instead, Davidson and a small party of Survey scientists traveled north in Tlingit canoes. The eclipse arrived on schedule, suitably sublime, and in the aftermath of all these experiences, Kohklux and his two wives Tu-eek and Kaatchxich, who were both from more southern Tlingit villages of the Stahkin River Tlingit, worked for days on a detailed map of the 500 miles of geography from the coastal Tlingit villages over the glacier-capped mountains and down into the Yukon River system. They talked about the map for days, and Davidson wrote down over a hundred place names at their dictation. They could do this, as Davidson and the wives were all fluent in the Jargon, the complex meta-language of the Pacific Northwest, which Davidson, from California, knew as the Chinook Jargon, Chinook Wawa.

Meanwhile, Davidson made an oil painting of the sun’s corona, at the height of eclipse totality, as seen through



*Part of the large Kohklux Map in the Bancroft Library,
UC Berkeley*



*Comparison crops from the Coast Survey's 1867 map of
Russian America, and the 1869 map of Alaska, showing the
regions from Klukwan to Fort Selkirk in the Yukon. Source:
NOAA*

his special telescope. Then the Tlingit and Davidson made an intellectual potlatch, exchanging the map and the painting. Davidson returned to San Francisco with indelible memories of the experience, many ceremonial objects and presents he received, and two vivid colored pencil sketches of the northeast and northwest carved roof pillars of the famous Whale House, a Raven moiety clan house.

In late 1869, the Coast Survey published its 2nd edition of a map of Alaska. A comparison of the 1869 section from Klukwan to Fort Selkirk, in the Canadian Yukon, and the same area from the 1st edition map, from 1867, shows that the Survey's cartography was completely re-done based on the Kohklux map.

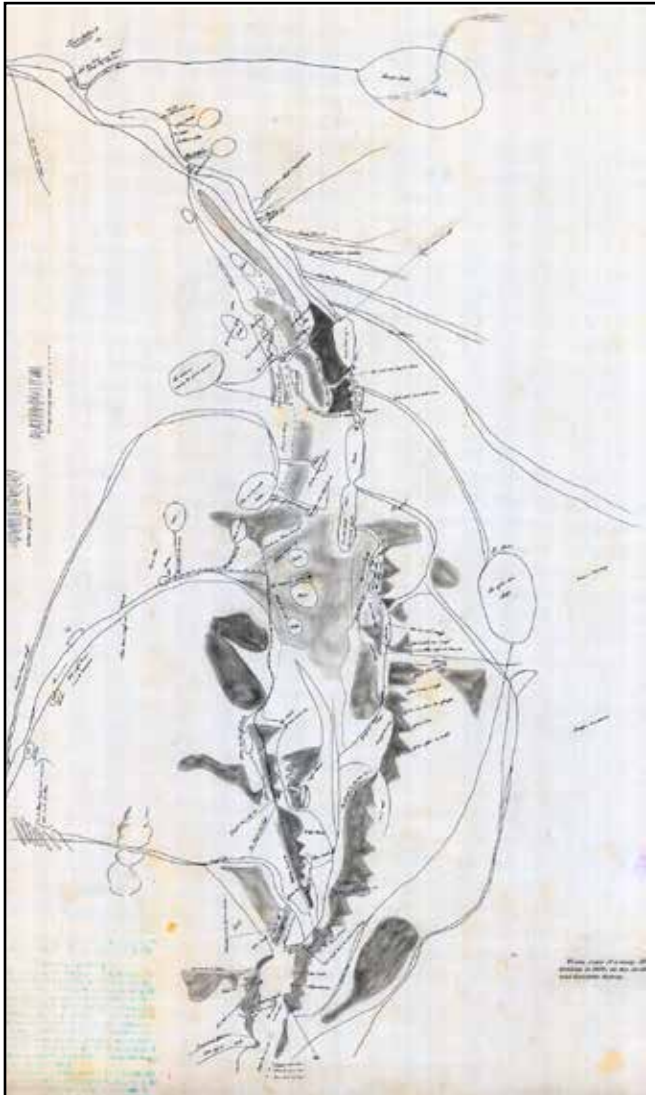
The Kohklux map is in pencil on paper. About 1883, a tracing cloth overlay of the map, in cleaner inked lines, was made in San Francisco and transferred to Survey headquarters in Washington, D.C. That tracing cloth version was formally enrolled in the Library and Archives Collection, the crown jewels of the cartography of the Coast Survey. There it remained, unseen, for over a century. In 2007, I discovered it in National Archives during my NOAA scanning project of historical maps and charts of the Coast Survey. I had never seen any map like the Kohklux map. One of Davidson's annotations, in English, was "Starting point for journey to the Yukon." And for me, a very appropriate comment as the map became my starting point for many journeys to Alaska and the Yukon.

When the Bancroft Library did their recent restoration of the original Kohklux map, they removed a piece of

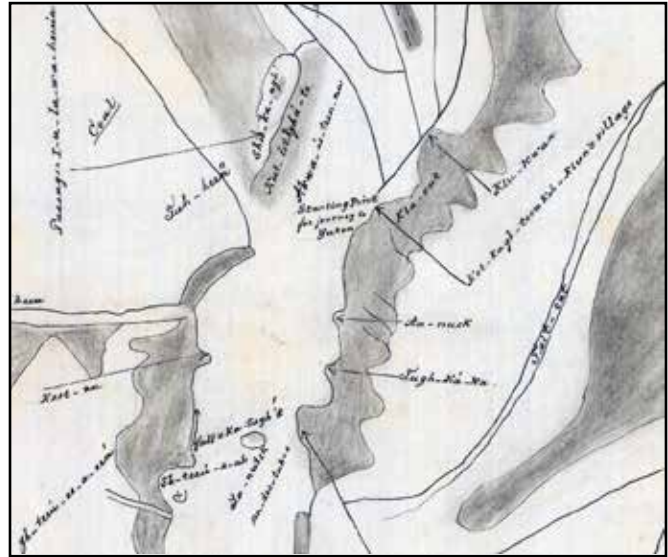
backing paper glued to the map, which revealed that the Kohklux Map was drawn on the back of a British Admiralty chart of southeastern Alaska, corrected to 1865. The British chart ended, in the north, at the Lynn Canal. The chart was annotated, in English and Tlingit, with place names and features heading south, all the way to Sitka, where Davidson and Kohklux met for their fateful journey. A small crop from the very northernmost edge of the "new map" shows the Chilkat and Chilkoot Rivers drawn in, with village sites and other annotations.

After George Davidson's departure from Klukwan in 1869, he returned to Alaska only once, 38 years later, in 1907. However, the next several generations of Coast Survey scientists knew the story of the Kohklux maps, and they came to Klukwan in 1890, and 1893–1894, to make their own mappings of the Chilkat river geography. They also photographed many of the people and sites still extant from the Kohklux maps. **John F. Pratt**, a gifted Survey scientist, photographed the interior of the Whale House, in a tableau that included one of Kohklux's sons, and one of his grandsons. The glass plate negative is now at the University of Washington Library's Special Collections. **Bob Venezia**, a graphics specialist in Seattle, was able to elicit details in the glass plate negative, not visible to observers in the 19th century.

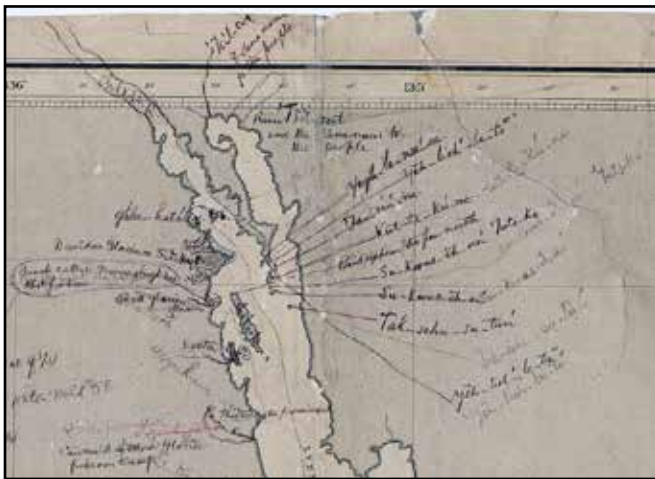
In 1897–1898, Pratt and company were sent thousands of miles northwest from Klukwan to the Pribilof Islands in the Bering Sea, and then to the mouth of the Yukon River delta, to map those locales. At St. Michael, the old Russian trading village on St. Michael Island, they hired an Inupiaq-American



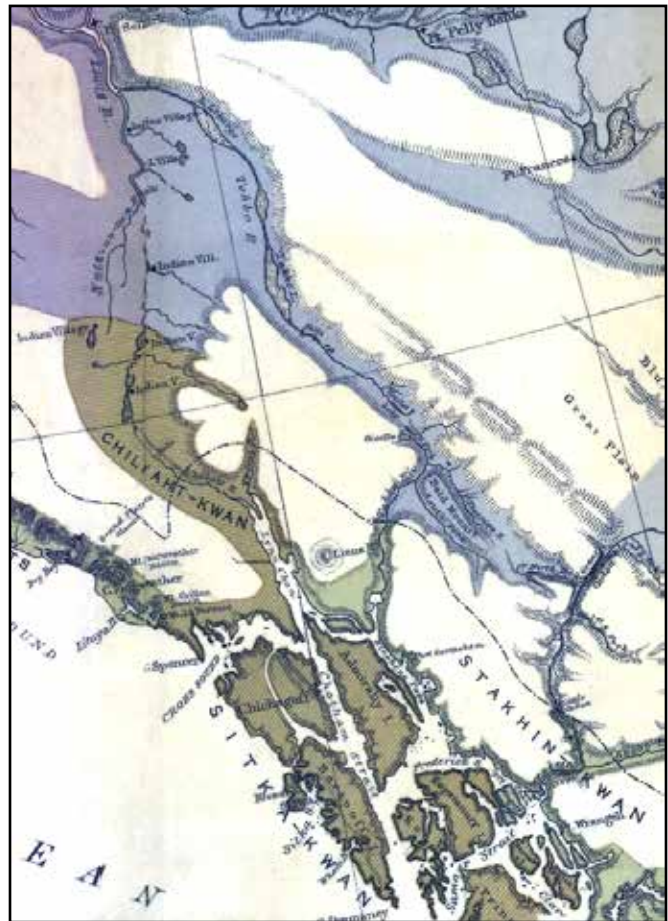
1883 Tracing cloth version of the Kohklux map, now in Record Group 23, Coast and Geodetic Survey, National Archives II



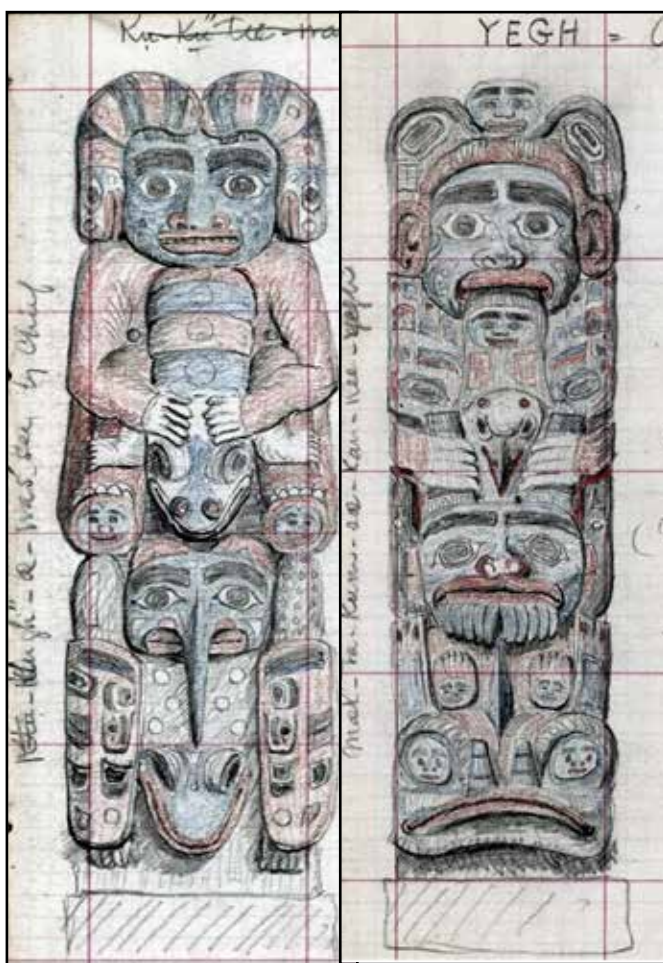
Cropped section from the 1883 tracing cloth map, showing place names and annotations in Tlingit and English. Source: Bancroft Library, Berkeley



The top section of the "new" map on the reverse of the Kohklux map. Source: Bancroft Library, Berkeley



Routes from Chilkat-kwan and Stahkin-Kwan to the Yukon River system, from the 1875 "Map of the Distribution of Tribes of Alaska and Adjoining Territory." Source: SI/NAA



Top: Whale House in Klukwan, 1890. The man and boy in the center are Kootooaak and his son, respectively a son and a grandson of Kohklux and his wife Kaatchxixch. Source: University of Washington Library

Bottom: The roof pillars as sketched by Davidson in 1869: the northwest 'worm-man' pillar (left) and northeast (right). Source: Bancroft Library, UC Berkeley

man, **Joe Kakaryook**, who made a series of maps and drawings of the Bering Sea coast and the lower Yukon River, extending upriver to a point just below Fort Selkirk, the northernmost region of the Kohklux maps. The maps were made and annotated exactly as had been done at Klukwan.

The Kohklux Maps 150 Years Later

In the 1980s, **Linda Johnson**, then the Archivist of Yukon College in Whitehorse and a member of the Yukon Native Language Centre, was exploring historical maps of the Yukon with ethnographic content, especially historical native place names. In 1984 she re-discovered the original Kohklux maps, now in the Davidson Collection of the Bancroft Library, at the University of California at Berkeley. She wrote a book about the map and later convinced the library to twice loan the map for conferences about Yukon geography and ethnography. In 2007, knowing nothing of this, I wrote an article about the tracing cloth map version I had found. A copy of my article reached the Yukon and Linda, and I have been in contact ever since. For 2019, Johnson proposed a major conference and re-evaluation of the whole Kohklux story, to be co-sponsored by the Yukon Historical and Museums Association, the Jilkaat Kwaan Heritage Center in Klukwan, the Kwanlin Dün Cultural Centre, along with many other Yukon First Nations, most Yukon government departments and institutions, and the Haines Museum in Haines, Alaska.

The Bancroft Museum declined to loan the main Kohklux map, but they did do “conservation” of the maps (there is never just one map). All the maps were cleaned, including the original small Kohklux map, made in Sitka and called the *Jail Map*, which was hand-delivered to the conference by **Theresa Salazar**, the Curator of Western Americana at the Bancroft Library. The Bancroft Library made fresh high-resolution scans of the maps, Davidson’s sketchbook containing the colored pencil sketches, and much else. I contributed my scan of the tracing cloth Kohklux map and many other Davidson-related materials.

Our Trails Bring Us Together

In keeping with the great geographical expanse of the original Kohklux maps, parts of the conference occurred hundreds of kilometers apart, over a period of a week or more. Satellite presentations and events were at the Haines Museum in Haines, the Jilkaat Kwaan Heritage Center in Klukwan, Alaska, at the Champagne & Aishihik First Nations in Haines Junction, Yukon Territory. Then all converged for the main conference, at Kwanlin Dün Cultural Centre in Whitehorse, by the Yukon River. The conference looked back, into history, as a springboard to the present and the future

for language retention and cultural strengthening. There were many Elders who were given much focus, but also many young people speaking in their languages. The range of languages was impressive: coastal and inland Tlingit, Tagish, Han, northern and southern Tutchone, and Gwich'in. There were prayers, speeches, dances, feasts, and, being in Canada, many Health Breaks to drink tea.

For my part, I know little about this geography and the peoples who inhabit it, but I know a lot about George Davidson, and also his daughter **Ellinor Davidson**, who is mainly responsible for the survival of his vast archives and their transfer to research institutions, mainly the Bancroft Library and the Phoebe Hearst Museum of Anthropology at UC Berkeley. Thus, we can look forward to more research and conferences and publications, as cooperative 19th-century cartography comes back to play prominent roles in 21st-century cultural preservation and reemergence in contemporary Alaska Native life and the Yukon Territory.

The Yukon is far from the Anthropology Dept. at NMNH, and Whitehorse is not easy to get to and from in winter. A number of people and institutions assisted me in my journey, and every stop enriched the journey, through the stories exchanged, and new clues discovered. Sealaska Heritage Institute got me from DC to Juneau and back and gave me an opportunity to rehearse my Yukon presentation. **Rosita Worl**, **Chuck Smythe**, and **Mason Auger** made this happen (<https://www.sealaskaheritage.org/>).

After my ferry travel to Haines, Alaska, I stayed with **Lee Heinmiller** and **Judy Erekson** of Alaska Indian Arts, in the historic Fort Hospital Building of the former Fort Seward (<https://www.alaskaindianarts.com/>). From there, I traveled to Whitehorse by car, 300 miles through fresh snow, with Sally Robinson and Linda Johnson of the Yukon Historical & Museums Association (<https://www.heritageyukon.ca/>), and Theresa Salazar of the Bancroft Library. A good part of the journey, the road paralleled the trails and lakes drawn on the Kohklux maps, which was wonderful. In Whitehorse, I stayed with **Doug Hitch**, a friend, and major Dene language scholar and historian.

I met dozens of people at the conference itself, held in the Longhouse of the Kwanlin Dün Cultural Centre. **Eleanor Hayman**, who works with the Carcross/Tagish First Nation, informed us of the correct names of Tu-eek and Ƙaatchxixch, and their context. These two women are “coming back” as their prominent roles in Tlingit culture, in addition to the making of the Kohklux maps, are being recognized. Their contributions have been presented, since 1875, in *Map of the Distribution of Tribes of Alaska and Adjoining*



Liminal Space|Awasitipahaskan, the space of a threshold from one domain to another. Photo by John Cloud

Territory by **William Dall** and George Davidson of the Coast Survey, published by **John Wesley Powell**. The base map for this is the Survey's 1869 map of Alaska, drawn after Davidson returned from Klukwan. In the 1875 map, chromolithographic colors representing language families are overlaid on the base map. Vast areas of Alaska for which Dall and Davidson had no knowledge are left blank. The map shows a major swath of the country from Chilkhat-Kwan to Fort Selkirk, the area of the Kohklux map. But the map also shows two routes over the mountains to a major tributary of the Yukon, originating in Stahkin-Kwan. These routes were described and mapped by Tu-eek and Ƙaatchxixch!

Another conference participant who must be mentioned was **Marina Hulzenga** (<http://marinahulzenga.com>), who made an installation that was seemingly unrelated to the Kohklux map, although it was in fact quite



Lani Hotch and jars of “subsistence” harvested from the Chilkat River area and the Lynn Canal. Photo by John Cloud

resonant. She “mapped” the 140 First Nation reserves in Alberta by pieces of deer hide in concentric rings, with audio clips, and a center ring of gravel, like all the roads in Her majesty’s reserves.

After the conference, I got a ride back along the beautiful snowy route to Haines, Alaska, with **Helen Alten**, the director of the Haines Sheldon Museum. Community radio is a strong element of Alaskan society. An interview on KHNS helped draw a very lively crowd for the event, held in the remodeled and transformed Haines Sheldon Museum, presently full of materials related to Kohklux and the stories of that great encounter (<https://www.sheldonmuseum.org/>). She got me housed in Haines in exchange for doing another presentation at the Haines Museum.

There was also another highlight of the journey—a visit, with Helen, to **Lani Hotch** at the Jillkaat Kwaan Culture Center in Klukwan (<https://www.jilkaatkwaanheritagecenter.org/>). The Center now holds all four of the roof pillars and the ceremonial screen of the historic Whale House, as sketched by Davidson and photographed by Pratt. At long last, after years, I saw the Whale House. Current photography is not allowed and wasn’t needed. Seeing the pillars, at last, was one highlight. The other was sitting and talking to Lani Hotch, who had a way of making two facing chairs become a circle, an arena for the best stories. She did much of the design of the culture center, especially including presentations about the seasonal rounds of traditional Tlingit foods and fibers, keeping the old ways going into the 21st century.

From Haines, there was another ferry ride to Juneau, and then back to D.C. Food and travel along the route were provided by a generous grant from the ASC “Tiger” Burch Fund. In summary, Alaska and the Yukon are vast places, and humans are few. That means that interactions tend to be intense and productive. At every juncture, every encounter, we were talking and gesturing, explaining and exploring, making sense as we could of this vast land, and the relation of people to it. We were attempting, essentially, exactly what Kohklux, Tu-eek, K̄aatchxixch, and George Davidson accomplished so brilliantly in a week in August 1869, at Klukwan, on the banks of the Chilkat River.

TRACKING ARCTIC CHANGE—ARCTIC REPORT CARD 2019

By Igor Krupnik

In October 2006, NOAA Arctic Program, then under the leadership of **John Calder**, produced its first annual overview of climate-forced changes in the Arctic called

“State of the Arctic Report.” The 36-page booklet was organized in four sections: “Atmosphere,” “Ocean,” “Sea Ice Cover,” and “Land,” with short 2-3-page synopses of major developments produced by 25 contributors, all prime experts in their fields. The Report was timed for the beginning of the International Polar Year (IPY) 2007–2008, then in preparation. It became one of the lasting legacies of NOAA Arctic Program and of Calder’s stewardship that included support for the NMNH/ASC exhibit, *Arctic: A Friend Acting Strangely* in 2004–2007, which we fondly remember.

Since 2006, NOAA continued to produce its annual overviews of Arctic environmental change now called “Arctic Report Card.” They soon doubled and, later, tripled in size (up to 100 pages), but preserved the format of short ‘snapshots’ on particular topics accompanied by graphs and charts, and small reference sections of a dozen key entries. The annual overview focus was soon articulated by the addition of the ‘Year Headlines’ and ‘Highlights’ summaries on the front page. The reports were widely distributed online as printable PDF documents and were featured at professional meetings and NOAA press conferences. Several leading Arctic physical scientists took turns in serving as ‘Report Card’ editors, primarily Drs. **Jackie Richter-Menge**, **James Overland**, and **Martin Jeffries**, whereas the total number of its contributors has grown to a few hundred. Besides the usual sections on Arctic temperatures and atmospheric circulation, ocean temperature and sea ice dynamics, snow cover, and land vegetation, later Report Cards added scores of new topics, such as the status of the Greenland ice sheet, other glaciers, and ice caps, permafrost, fish population dynamics and fisheries, even updates on specific Arctic species—polar bear, walrus, whales, seals, caribou and reindeer, seabirds, geese, Arctic char, and others—(see <https://arctic.noaa.gov/report-card/report-card-archive/>).

Nonetheless, in almost 15 years of its production, the Report Cards maintained their prime focus on the physical and, partly, biological components of the Arctic environment, reflecting the general focus of the NOAA mission. Among more than 100 entries published since 2006, only one (!) featured a short summary on the community-based efforts to document Arctic environmental change by polar residents themselves. That short overview in 2015 (co-authored by **Lilian Alessa**, **Andrew Kliskey**, **Donald Forbes**, **David Atkinson**, **David Griffith**, **Tero Mustonen**, and **Peter Pulsifer**) provided a brief snapshot of community-based observational networks that survived the IPY era. For whatever reason, it remained the Report Card’s only projection on the role of Indigenous residents in documenting Arctic environmental change.

The 2019 Report Card

NOAA's 2019 "Arctic Report Card," the fourteenth annual installment in the series, was released on December 10, 2019, at the American Geophysical Union (AGU) fall meeting in San Francisco. A printable booklet of 100 pages co-edited by **J. Richter-Menge**, **M. Druckenmiller**, and **M. Jeffries**, and compiled by eighty-one scientists from twelve nations, overviews transitions across the northern polar region during 2019. Besides the short executive summary, it is organized in twelve sections (thematic essays). Many are the standard topics of the annual reports—surface air temperature, sea ice and snow cover, Greenland ice sheet melt, permafrost and tundra greenness. Other essays introduced new facets of the Arctic change, like the contribution of the permafrost melt to the global carbon cycle; response of marine algae to climate warming and sea ice decline; and the northward migration of the near-bottom fish communities in the Bering and Barents seas. Three



The young broken ice in Gambell, Alaska, in February 2017 now looks 'normal' for winter conditions in the warming Arctic.

Photo by Igor Krupnik

stories are highly innovative, those of the Arctic ivory gulls (*Pagophilla eburnea*), of continuing rapid warming of the Bering Sea; and of indigenous perspectives on the Bering Sea ecosystems (see below).

The 2019 Report Card presents an overwhelming slew of evidence on the pace of environmental change in the Arctic triggered by the rising air and water temperatures and rapidly declining sea ice. The Report Card rightly calls the speed of change 'unprecedented,' with near-record high air and ocean temperatures in 2019, continued loss of the Greenland ice sheet, and the near record low of summer sea ice extent. For the Arctic as a whole, 2019 was the second warmest year since 1900 in terms of the average annual land surface

temperature north of 60°N for October 2018–August 2019 and in Alaska the statewide average temperature was the highest in the existing record (1925–2019). Annual temperature records were also set at Utqiagvik, Fairbanks, and Anchorage. The year saw the second lowest minimal sea ice extent by the end of Arctic summer since the beginning of satellite observations in 1979 (it was literally tied with the record minimums of 2007 and 2016). It was the third lowest year in terms of the land snow cover persisting till June and was also marked by a gigantic release of melt water from the Greenland ice sheet, which currently contributes to global average sea level rise at about 0.7 mm per year.

These and other data are based on original, peer-reviewed environmental observations and analysis conducted by the national agencies and research teams of several nations across the entire Arctic region. Several areas in the Arctic raise particular concern for the speed of change, like the northern Bering Sea-southern Chukchi Sea region, Baffin Bay, and Northwest Greenland that are of long-term interest to ASC scientists and research partners.

Participants of the Bering Sea Elders' Arctic Report Card Workshop in Nome, Alaska (September 2019). Source: https://arctic.noaa.gov/Portals/7/ArcticReportCard/Documents/ArcticReportCard_full_report2019.pdf



In a recent article published in the journal *Science Advances*, a group of fifteen world-recognized leaders in polar research, including **Eric Post**, **Richard Alley**, **Julienne Stroeve**, **Michael Mann**, as well as the ASC partners, **Ross Virginia**, **Bruce Forbes**, and **Fran Ulmer** (Chair of the U.S. Arctic Research Commission), warned that over the past decade the Arctic has warmed by 0.75°C relative to the mean temperatures for 1951–1980. As the planet faces the prospect of 2°C warming throughout this century,

the Arctic may reach 4°C mean annual warming and 7°C winter warming, respectively. To many small polar communities, the impacts of such change would be stunning and indeed ‘unprecedented’ in people’s historical memory. Many coastal communities may lose (or have already lost!) their winter ice, except for a few months, even weeks. They face summer temperatures rising into the 70s, even 80s degrees F (way above 20°C); increased storminess and land/shore erosion; rapid permafrost melt; and dramatic restructuring in both marine and terrestrial ecosystems. The impacts on Arctic residents’ life and economy are soon to follow.

At its meeting in fall 2019, the North Atlantic Marine Mammal Commission (NAMMCO) proposed a complete ban on subsistence hunting for narwhals in East Greenland, where local narwhal population has reportedly dropped by more than 70% since 2008. Along the Bering and Chukchi shores, beaches are littered with the dead seabirds, such as short-tailed shearwaters, common murre, puffins, and auklets. More than 200 dead gray whales were washed ashore along the North America’s West Coast, suggesting thousands more might have perished. In Utqiagvik (formerly Barrow), the fall whaling season for bowhead whales in 2019 lasted into the month of November, with neither the usual sea ice nor whales in sight, until a single whale was killed in late November. In fall 2018, local Inupiat whalers landed nearly 20 whales, the usual number for the season. The spring observational season for sea ice conditions under the SIWO (Sea Ice for Walrus Outlook) network in the northern Bering Sea (see *ASC Newsletter 2019*) concluded on May 31st, three-four weeks earlier than in 2010–2013, with neither sea ice nor walrus in sight. By December 2019, the new sea ice extent in the northern Bering Sea was the lowest on record for this time of the year. Similar local evidence to the unusually warm weather, sea ice, and ecosystem conditions in 2019 is in near-endless supply.

Indigenous voices in the 2019 ‘Report Card’

The 2019 Report Card is also unusual within the NOAA 14-year series in that its editors made special effort to present indigenous perspectives on the changing Arctic, something that social scientists have been advocating since the late 1990s, including at ASC (see *ASC Newsletter 2000, 2001, 2002*, and several later issues). A section in the report titled *Voices from the Front Lines of a Changing Bering Sea* compiled by **Matthew Druckenmiller** (NSIDC), **Raychelle Daniel** (The Pew Charitable Trust) and **Melissa Johnson** (Bering Sea Elders Group) featured the outcomes of the first workshop of its kind for the ‘Report Card’ that was held in Nome, Alaska on September 26–27, 2019.

The meeting brought together representatives from eight rural communities across the Bering Sea region, including Wales, Savoonga, Nome, Unalakleet, and St. Paul of the Pribilof Islands, with which the ASC has years of joint research and partnership relations (see <https://eloka-arctic.org/communities/bering-sea-voices/>). The community observers stated loud and clear that the Bering Sea is undergoing changes that have never been observed in their lifetimes and that record-breaking temperatures, reduction in sea ice, and the increasing lack of snow are impacting people’s life resources, such as marine mammals, fish, seabirds, and plants. They pointed to the most significant factors of change across the entire (eastern) Bering Sea area, such as dramatic shifts in the timing, thickness, and safety of sea ice; the increased instability of weather and winds that makes local weather forecasting difficult and traveling conditions increasingly dangerous; and the growing threat of storms, coastal erosion, but also of new phenomena, such as coastal landslides, large sinkholes, and methane bubbling up through their freshwater lakes. In addition, Indigenous contributors voiced their special concerns about increased threats to specific food resources, such as the massive die-offs of cod, tomcod, and salmon (evidently from warm water temperature and lack of food), seabirds with clear signs of starvation, and dead seals littering the shores in many locations.

Indigenous communities across the Bering Sea region are increasingly on edge because the pace of transition is often overwhelming. The resulting message from the workshop speaks for itself: “The world of our childhood is no longer here.” It has been amplified by similar statements by the Assembly of First Nations of Canada that declared a ‘First Nations Climate Emergency’ in July 2019, and by the declaration of a climate change ‘emergency’ approved by the Alaska Federation of Natives at its annual convention in October 2019 in Fairbanks.

It’s Cold—but is it ‘Cold Enough’?

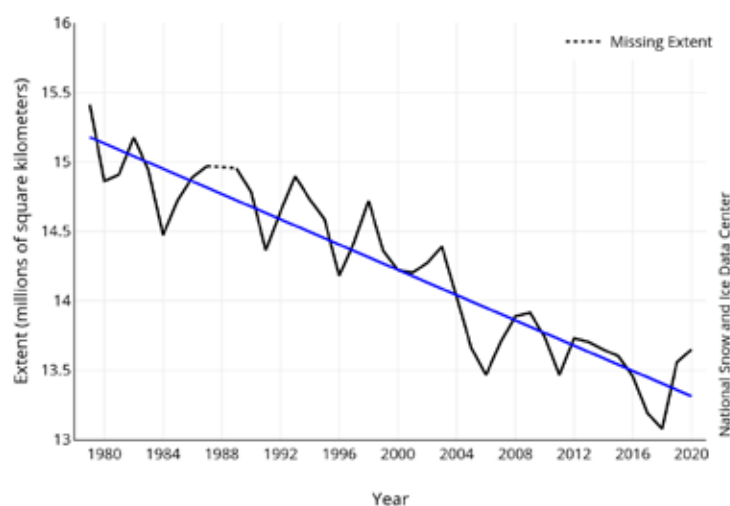
The warming spell of 2019 was finally broken in the last week of December, when cold air from the Arctic brought the temperatures to a record low, at least in Alaska and the Western Arctic. The Chukchi Sea was quickly covered with newly-formed ice; drifting ice floes clogged the Bering Sea, and the young shore-fast ice rapidly expanded across the bays and inlets in the northern Bering Sea. January 2020 finally saw winter weather and ice conditions that could be called ‘close to normal’ across most of the Arctic area. By the end of January 2020, the total Arctic sea ice cover of roughly 13.7M sq. km (5.27M sq. mi) was visibly above the average for the decade of the 2010s (13.45M). Yet it remained substantially lower than the average for the

2000s (14.02M) and almost incomparable to the average numbers of the 1980s (15.01M) and the 1990s (14.7M; www.forum.arctic-sea-ice.net/).

As always, some Arctic areas experienced more cold than others. By the end of January 2020, the Western Arctic seas (the Chukchi, Beaufort, and East Siberian) had 100% ice cover, that is, 100% of the average for the period of 2004–2019 (<https://uaf-accap.org/sea-ice/>) whereas the Bering Sea was at about 95% of the ‘average’ cover (about 620K km²), mostly because of some lagging freeze-up in the western (Russian) sector. According to Anchorage-based KTUU channel (www.ktuu.com/), January 2020 was cold in Alaska—not terribly or record cold, but enough to bring the memories of true ‘cold winter’ of the past. Temperatures in Utqiagvik (Barrow) hit -40°C for the first time in 2919 days, which is eight years. It was the eighth coldest January on record in Alaska and also the first in 22 consecutive months that the mean temperature was below average for the entire state. It also brought a lot of snow—Anchorage had two record snowfall days, with 6.2 inches falling on January 1, 2020.

In other parts of the Arctic, the pattern was mixed. The sea ice extent was about ‘normal’ (i.e., average) in the northern Barents Sea, compared to several last years when there was little ice across the area in January. The Central Canadian Arctic also saw heavy ice conditions, whereas ice was lower (lighter) in the Sea of Okhotsk, East Greenland Sea, and particularly along the Labrador coast and in the Gulf of St. Lawrence. Also, according to the National Snow and Ice Data Center (NSIDC) ice concentration chart for January 2020 (https://nsidc.org/data/seaice_index/), most of these areas saw just barely 30–40% ice cover which is mostly a mixture of drifting ice floes, but not solid ice cover.

As the winter of 2019/2020 goes into February, once its ‘coldest’ month, the Arctic ice keeps growing, albeit at a slower pace. While we are seeing average ice coverage across the Bering Sea in the early weeks of 2020, this does not account for ice thickness, as the ice has been very thin over the past several years, due to warmer ocean temperatures. The main issue now is not whether ‘it ever gets cold again’ (it does!) but whether it will be



Average monthly Arctic sea ice extent, January 1979–2020.

Source: <http://nsidc.org/arcticseaicenews/>, fig. 3

‘cold enough,’ in the words of one of my St. Lawrence Island Yupik partners, to build good solid ice. In the ‘olden days,’ February was supposed to bring more cold weather and ice; but in recent years, particularly in winter 2019, it brought bouts of warm weather and heavy storms from the south that broke up ice and pushed it away from shores in a mess of drifting floes. We witnessed that pattern last February in Nome, during the 5th Thule

centennial session (see *ASC Newsletter 2019*), with the temperatures around or above the freezing level, massive snowfalls, and hardly any sea ice in sight. If this pattern repeats again in 2020, we would be back to the same cycle witnessed in 2019 featured in the latest “Arctic Report Card” of 2019.

OIL FISH OF DESTINY

By John Cloud

There was a great confluence of some of the best maps in modern American cartography in October 2019 in the seaport of Tacoma, Washington. The awkwardly titled North American Cartographic Information Society, or NACIS, is made up primarily of working cartographers and scholars of cartography, so every wall and screen at its conferences are covered in imagery. The city of Tacoma has two mottos: “Where Sails meet Rails”, and “City of Destiny.” Run together, these sound like a haiku verse, which was the inspiration for my exercise in cartographic forensics. The mottos refer to the terminus of the Northern Pacific Railroad at Tacoma on Puget Sound, which opened the products of resource extraction in the Pacific Northwest to global commerce in the Pacific and the world. Tacoma’s destiny was to reap the benefits of all this—but who paid the costs?

What is now titled the State of Washington was a small part of a much larger, amorphous area, which first was titled “Oregon.” The name was a process of geography; in the deep interior of the northwest, “Oregon” apparently originally referenced a great river that flowed to the Pacific but then eventually evolved to refer to a large area parallel to the Pacific coast, stretching from what is now British Columbia

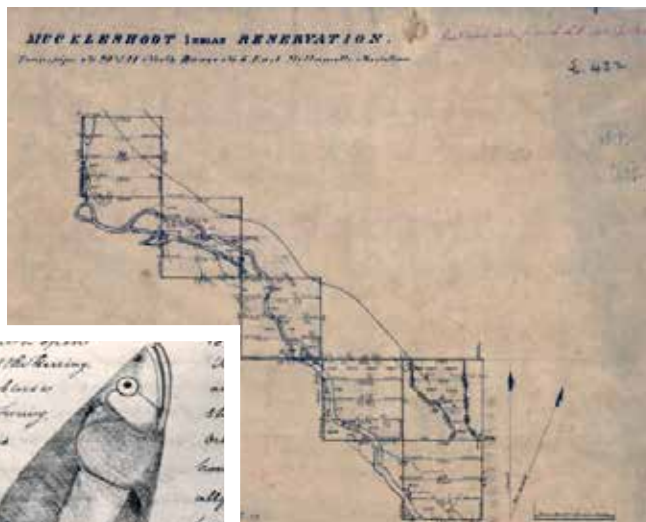


Ethnographical Map of Oregon, circa 1846, provenance unknown. Source: American Geographical Society

to California. But why the change, and, for that matter, why “Oregon”?

Here I draw upon the excellent linguistic research of my friend and colleague **Scott Byram**, who, with **David G. Lewis**, published a major paper on the history of the word and the concepts. (*Ourigan: Wealth of the Northwest Coast*, by Scott Byram and David G. Lewis, Oregon Historical Society, 2002). They trace the name Oregon to a fish, specifically a small oily fish of the northern Pacific Ocean, *Thaleichthys pacificus*.

The fish was, and is, embedded in cultural as well as ecological systems. For millennia, coastal Pacific peoples have caught and processed the fish for oil, which in turn was carried over the coastal mountains to trade with inland people for the resources they had harvested: meat and fruits, animal pelts, chunks of obsidian, etc. Byram and Lewis methodically traced the historically documented names for the fish, and disparate spelling of the names. A pattern leaps out: with some exceptions, all the fish names, across entire language families, consist of a three-syllable word, beginning with a vowel sound, ending with “n.” And thus somehow, out of many, came Oregon.



The Muckleshoot Indian Reservation, 1875. Source: US Army files, Record Group 57, National Archives II



The eulachon fish, as drawn by Meriweather Lewis, in 1804. Source: Missouri Historical Society

My contributions to the matter were in the rediscovery of very rare historical maps from the early 19th century that visualized the region spanned by the fish names. As well, I wanted to address what happened to all the peoples there in the process of Tacoma becoming “City of Destiny.” The key to much is a remarkable map published in 1883, *Under a Black Cloud*.

The series of syndicates which controlled the Northern Pacific Railroad, as part of the project to complete the railroad, received ownership of alternating checker-board squares of so-called “public lands”—the largest single transfer of land to private ownership in the history of the United States. But those checkerboards were laid over every treaty, every promise, every reservation in the path of the railroad. The railroad received all the odd-numbered squares in larger squares in which the numbers went left to right, then right to the left, etc.—a pattern called “boustrophedon”, referring to the way Roman oxen plowed a field. As a result, from one day in 1875, to the next, the small Muckleshoot Indian Reservation, east of Tacoma, was check-mated. And thus, my cartographic forensics of Tacoma’s mysterious haiku.

JAUZARREA CONFERENCE ON BASQUE NORTH ATLANTIC CONNECTIONS

By William W. Fitzhugh

In October, **Lynne Fitzhugh** and I traveled to the Basque Country ('Euskal Herria') to take part in the seventh international Atlantiar conference put on by **Xabi Otero** and his Jauzarrea Foundation (<https://jauzarrea.com/>). The year before, we had attended the gathering he and Mi'kmaq Grand Chief **Stephen Augustine** organized in Sydney, Nova Scotia, so we had a chance to re-establish ties with old colleagues and meet new ones. This year's meeting took place in the aftermath of **Dennis Stanford**'s death after a long struggle with cancer. Dennis and **Pegi Jodry** had been 'charter' members of earlier Atlantiar gatherings, along with **Bruce Bradley**, on account of their Solutrean hypothesis. Pegi and Bruce were with us again, and the meeting was both a memorial for Dennis and an exploration of old and new ideas.

Like previous gatherings, this year's took place over several days and afforded time to tour cultural sites in the region around the western part of the Pyrenees, San Sebastian (Donostia), and visit museums, historic sites, and even a chocolate factory. Throughout the visit, we were hosted by **Xabi** and his wife **Beatrice** in their medieval 'castle' nestled in the foothills of the Pyrenees.

Meals for more than twenty at a long table in their living room were made and served by an entourage of Jauzarrea friends who doubled as guides and chauffeurs

in our countryside rambles. Lodging was in an ancient blacksmith shop converted into a comfortable inn. Of course, the food and wine were fabulous, as one would expect in this ethnic gastronomic heaven! In addition to Xabi's and Beatrice's home, we dined in one of the old Donostia gastronomic societies and visited two other domestic settings that hark back to early Basque rural home-steading.



Top: Jauzarrea is based in Xabi's and Beatrice's home, a renovated medieval 'fortress' in the town of Arraiatz, Navarre. Bottom: Cider press mechanics at the Igartubeiti farm museum. Photo by William Fitzhugh

All three follow the model of a large stone-walled structure whose bottom floor was used in winter as an animal barn as well as being on the receiving end of an apple cider press whose great press levers were on the floor above, beside the family's living quarters. The floor above that—a kind of attic—served as the hayloft and storage for agricultural gear. One of the open-air museums we visited demonstrated how this settlement type had evolved from Neolithic and Iron Age times, and how the combination of animal husbandry and cider became central features of Basque rural economy that continue to this day. The third building of this type is the home of friends of Jauzarrea who put on a feast of food and music in their home and gave us a tour of how they have turned their cider press-barn into a gorgeous dwelling stocked with art, artifacts, and of course local wine and cider.

Besides the informal discussions during our peregrinations, meals, and lounging, we presented research papers at a full-day symposium at the Orona Foundation in Gipuzkoa.

Orona—a world-famous company specializing in elevator technologies—has been a long-term sponsor of Jauzarrea and provided great support for our talks, which were attended by a large audience of friends, scholars, artists, and press.

A portrait of Dennis Stanford dominated the stage. Presentations ranged from musical performances to archaeology, dance, DNA, linguistics, and everything in between. Pegi spoke about Dennis and reported on the Cinmar finds; Bruce on Basque refugia in North America; **Michael Collins** on the Paleoindian Gault site; Xabi on possible boat images on Gault stone tablets; and **Ron Williamson** on Wendat-Basque trade connections in the St. Lawrence valley. Along with other presentations, there were papers on DNA research by **Stephen Oppenheimer, Maria Pala, and Martin Richards**. The latter work discussed genetic introductions from the Near East and Steppe to the ancient Basque genome during Neolithic and Bronze Age times, so there is no chance of a pure Paleolithic Basque genome persisting into modern times. On the other hand, Basque lineages contribute a major proportion of DNA to the genomes of western Europe, suggesting an Iberian population expansion northward following the retreat of Ice Age glaciation, and modern Basque genomes include a strong component of pre-Neolithic lineages. Other papers were given by **Lionel Sims** on astroastronomy and Basque mythology, **Eddy Kennedy** on the introduction of Basque interpreters at Parks Canada's Louisbourg Fortress, **Xarles Bidegain** on Basque linguistic introductions at Louisbourg, and **Idoia Arana-Beobide** on matrilineal contributions to world cultures. My talk up-dated recent archaeological studies of 17th–18th-century Basque-Inuit contacts in the Gulf of St. Lawrence.

Jauzarrea continues to stress the importance of new scholarship on Basque culture and history and provides a hugely delightful forum for promoting Basque heritage, internally and internationally. What is needed now is a catalyst to convince sponsors and governments to take seriously the need for promoting and preserving Basque culture from Paleolithic times in Europe and after the arrival of Indo-European peoples, as well as to the diaspora of ten million Basques now dispersed all over the world, with their culture, and educating

the wider world about the many but little-appreciated contributions Basques have made, and continue to make, throughout the Americas and rest of the world. Sponsors for the conference included **Txoria Errekan, Jauzarrearen lagunak, Orona Fundazioa, Hiru Belugak, Michael Collins, Debbie Steiss and Ron Williamson, Lynne and William W. Fitzhugh**.

THE ABRAHAM ANGHIK RUBEN INUKSUK SCULPTURE INSTALLED AT MSC

By Igor Krupnik

Having said 'farewell' to the *Narwhal* exhibit at NMNH, its several components are starting a new life of their own (see Fitzhugh's story, this issue). One of the most impressive elements of the exhibit, an iconic *Inuksuk* sculpture created by **Abraham Anghik Reuben**, renown Canadian Inuit artist, has found its new home in the Natural History Museum Support Center in Suitland, MD.

It is hard to find a better place for this iconic piece of Inuit heritage, also of modern art, so that it now becomes a marker of the Anthropology symbolic space and Indigenous people's presence in the Natural History Museum collection facility. Our friends and colleagues at the nearby Collection Resource Center (CRC) of the National Museum of the American Indian (NMAI) have long resolved this issue by placing several pieces of Indigenous art in their hallways and collection space. So, we are just catching up, slowly.

William Fitzhugh, the *Narwhal* exhibit curator, recalled the story of the exhibit, of Abraham's involvement with the Smithsonian from years prior (including his exhibit staged at NMAI on the occasion of the 18th Inuit Studies Conference in Washington D.C. in October 2012 curated by **Bernadette Driscoll Engelstad**), and of his generous donation of the sculpture to NMNH for the *Narwhal*



The Abraham Anghik Ruben Inuksuk sculpture created for the Narwhal exhibition in its new permanent display at the Museum Support Center. Photo by Esther Rimer



On January 28, 2020, some 30 people welcomed the Ruben Inuksuk in its new permanent display at MSC near the entrance to the Anthropology Collections headquarters. Photo by David Rosenthal

exhibit life and beyond. **Igor Krupnik** followed with the recap of the Inuksuk's accession process by Anthropology and with the general role of similar stone human-like sculptures that mark the Inuit physical and symbolic landscape across the Canadian Arctic.

We missed the narwhal *muktuk* (skin/blubber interface) as well as other Inuit delicacies to celebrate the event and had no drums (except many in the collections) to sing the proper Inuit songs. But this was compensated by the enthusiasm and interest of the audience. With this new installment, Abraham's sculpture acquired its permanent display place; Anthropology got a highly visible marker of its home space at MSC, and all future visitors to the NMNH collections now have an artistic piece of Arctic heritage wonder to marvel at. It was a total win-win. Our warmest thanks to **J.R. Smith**, MSC Program Manager, **Dave Rosenthal**, Anthropology Collection Manager, **Christyna Solhan**, the lead of the *Narwhal* exhibit development team, and others who made it happen.

ARCUS INDIGENOUS SCHOLARS TRAVEL TO D.C.

By Lisa Sheffield Guy, Helen Aderman, Beth Leonard, and Tonia Osborne

The Arctic Indigenous Scholars Program, led by the Arctic Research Consortium of the U.S. (ARCUS) and the Inuit Circumpolar Council (ICC) Alaska, and supported by the National Science Foundation's Division of Polar Programs, aims to create a space for Indigenous scholars to educate and inform policy and decision-makers engaged in Arctic issues in Washington, D.C. The program defines a scholar as an expert within their knowledge system.

During 2019—the second year of the program—a committee of Arctic Indigenous leaders selected four scholars for the opportunity: **Helen Aderman** (Yup'ik), originally from Togiak, Alaska, with interests in marine ecosystems and subsistence; **Beth Leonard** (Athabascan), a professor of Alaska Native Studies at the University of Alaska Anchorage, with a focus on higher education for Alaskan Native students; **Tonia Osborne** (Inupiaq), a recent Marine Biology graduate of the University of Alaska Southeast, with focus on marine science, climate change, and incorporating Indigenous knowledge into science; and **Mark Miklahook** (St. Lawrence Island Yupik), with interest in language and cultural resources for St. Lawrence Island.

During their time in the Capitol, the scholars met with a variety of organizations and leaders relating to their interests. Helen had the opportunity to speak with U.S. Senator **Dan Sullivan** (R-AK) to advocate for long-term habitat protection legislation as well as to

alert federal organizations and stakeholders of current issues that Bristol Bay Native communities face. Beth met with staff from the National Science Foundation, NCAI, and the Bureau of Indian Education to discuss their recent funding initiatives to promote the success of Alaskan Native students in higher education. Tonia utilized her expertise in marine mammals and climate studies to highlight the importance of respecting the needs and cultural values of Indigenous communities during conversations with scientists and policymakers at the likes of NOAA, NSF, NCAI, and many others.

ARCUS would like to thank the following organizations for hosting the scholars in Washington, D.C.: U.S. Global Change Research Program, Interagency Arctic Research Policy Committee, Office of Science and Technology Policy, Smithsonian Arctic Studies Center, The Arctic Institute, National Oceanographic and Atmospheric Administration (NOAA), National Science Foundation (NSF), U.S. Senator **Lisa Murkowski** (R-AK), U.S. Senator **Dan Sullivan** (R-AK), U.S. Department of Education, U.S. Bureau of Indian Education, National Congress of American Indians (NCAI), and National Council for Science and the Environment. The scholar's program is expected to continue in 2020.



Top: 2019 ARCUS Indigenous Scholar Helen Aderman (center) meeting with Senator Dan Sullivan (left) and Andrew Aderman (right). Photo by ARCUS.

Bottom: ARCUS Indigenous Scholars Tonia Osborne, Beth Leonard, and Mark Miklahook (left to right) visited the NSF in May 2019. Photo by Joed Polly

HUNTING AND GATHERING CANADIAN MATERIALS IN EASTERN ARCTIC ARCHIVES

By Sean Guistini

A region that holds archival material about itself is stronger. That was the guiding principle of my research as a scholar in the second cohort of the Fulbright Arctic Initiative. In May 2019, I was graciously hosted by Dr. **William Fitzhugh** and his team at the Arctic Studies Center (ASC), who served as my guides into the distinctive archives of the Smithsonian Institution and the National Archives at College Park in Maryland. The aspiration of this Fulbright research visit was to locate archival holdings from the Canadian Eastern Arctic to build the capacity of the digital archive at my home institution, Nunavut Arctic College in Iqaluit.

To be most clear, I was not researching as much as searching. I was not working on publishing a paper, book, thesis, or produce a documentary, and by no means was my searching in the archives of the Smithsonian and the National Archives a novel mission. Much of what I examined has been accessed, employed in research, and in publications and exhibitions many times. My goal was much simpler: to meet archivists and scholars to learn more about Canadian Eastern Arctic materials held in the United States and to explore possibilities for digital sharing.

I manage Nunavut Arctic College Media (NAC Media), which was established in April 2015 to continue the 30-years-long publishing activity of the college. In addition to publishing, we have broadened our media products to include film, digital web, and oral history production. One of our first initiatives was to begin populating a digital repository of archival, oral history, traditional knowledge, and other digital materials to develop more learning resources, enhance conditions for research, and increase access to archival materials within the territory of Nunavut.

In 2015, we started by searching, sourcing, and digitizing cassette tapes, quarter inch reel-to-reels, and a spectrum of video formats from offices, homes,

storage units, cabinets, and garages in Nunavut and other places in Canada. As our digital holdings grew, we reached out to institutions and people in Western Europe and the United States holding Canadian Eastern Arctic materials. The Fulbright Arctic Initiative offered a timely and rich opportunity for further development of our archiving program through networking and my research visit to the ASC.

After a seminal month in Washington, D.C., I advanced my archival searching to Philadelphia, New York City, Indiana University, and Dartmouth College. Throughout my travels south of the border, I located compelling material, much of which I was able to bring home digitally. Most relevant to Inuktitut speakers and linguists are rare, old audio recordings that are now held in our Iqaluit office and available for listening, teaching, learning, and research. These recordings hold significant cultural and linguistic value and have never been heard by the vast majority of Nunavummiut.

As important as the material acquisitions of my research visit were the intangible outcomes. I was reminded of the excitement and intensity of archival work: diligently following a clue pulled from the footnotes of an arcane article; the exhilaration of finding something that glows with significance; the anxious glances at the clock as time winds down on your last day; the tender shoulder blades wrought from an awkward posture while taking hundreds of photos with a smartphone; sharing quiet spaces with strangers on their own historical wavelength.

I was also reminded of the importance of the archivist and the bricks-and-mortar archive. As the desire to digitize and distribute archives online gains a full head of steam, the importance of people and places in the archival process remains paramount. Each archivist I met provided invaluable information, institutional context, and expressed capacious care for the respective collections. They presented themselves as curious partners, eager for input to refine the descriptions of the materials they held. I departed each place knowing that the collections were in caring, vigilant hands that were willing to extend expertise, ideas, and material.



Sean Guistini and the ASC's Nancy Shorey on the National Mall. Photo by Nancy Shorey

A sincere thanks to the Fulbright Arctic Initiative, Dr. Fitzhugh and the ASC, and all the archivists and staff who generously offered their time; and a special thanks to **Nancy Shorey**, who ensured that I ate healthy and found my way around Washington. This Canada-US initiative contributed to making Nunavut stronger through partnership, dialogue, and the digital return of archival holdings that help tells its story.

KRUPNIK RECEIVES SMITHSONIAN DISTINGUISHED SCHOLAR AWARD

By *William Fitzhugh*

Igor Krupnik received the *Smithsonian Distinguished Scholar Award* of 2019, the highest honor bestowed annually by the Smithsonian Secretary for outstanding contributions to Smithsonian science. The award, first given in 2000, celebrates excellence in all branches of Smithsonian scholarship by honoring the sustained achievement of individual Smithsonian scholar each year. The winners are asked to deliver a lecture on some aspect of their work to the Smithsonian community, and they receive a medal and a contribution to their research funds. Since 2017, the Secretary gives two awards—one in the sciences and one in the humanities.

Krupnik received his award (and a medal!) in the humanities competition and Secretary's medal for his contribution to Smithsonian work with Indigenous communities and, specifically, to the field of 'co-production of knowledge' with Indigenous experts. He has been one of the Smithsonian's most powerful

voices on the need to partner with local knowledge holders in documenting the advance of climate and general environmental change, in heritage preservation, cultural history, museum collections, and other domains critical to the ASC mission. Igor's lecture delivered on December 11, 2019, was titled *Heritage in Drawers: From Taking In to Giving Back (a Smithsonian Journey)*. It covered the Smithsonian's gradual transition from an institution dedicated to 'taking in' the riches of other cultures, for scholarly preservation, to increasingly serving as a hub for 'knowledge sharing' and partnership on behalf of many constituencies.

Krupnik's Distinguished Scholar award is the second one earned by the ASC staff (after Bill Fitzhugh's in 2003) and the fourth received by the NMNH anthropologists (including **Adrienne Kaeppler** and **Douglas Owsley**). The ASC congratulates Igor on this achievement.

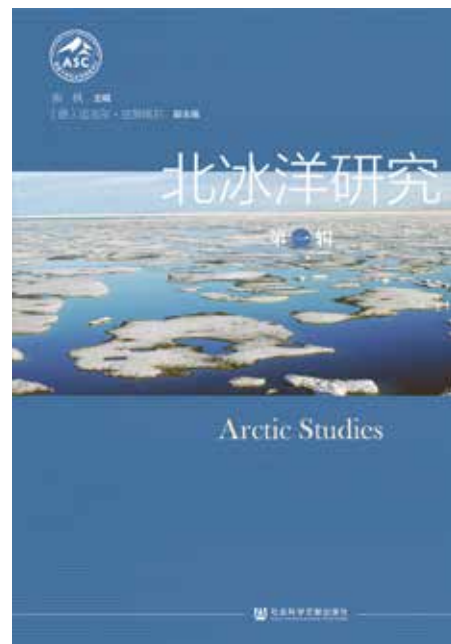
LIAOCHENG UNIVERSITY ESTABLISHES ARCTIC STUDIES CENTER

By *Jian Zhou*

Founded in March 2018, the Arctic Studies Center (ASC) at Liaocheng University (LCU), China, is dedicated to the exploration of polar ethnographic landscapes, traditional indigenous knowledge of survival in circumpolar regions, and human-environment interactions over thousands of years. The Center has three divisions: ethnology and anthropology, environmental history and archaeology, and International Affairs and Public Governance.



NMAI director Kevin Gover presents Krupnik with award medal



The new Arctic Studies Journal of Liaochang University



Feng Qu, director of the Arctic Studies Center, Liaocheng University

The ASC houses Chinese and international scholars who actively represent LCU in international academic events. It has launched a *Journal of Arctic Studies* in Chinese which publishes peer-reviewed articles in the field of Arctic social science and humanities, including anthropology, history, archaeology, sociology, cultural ecology, art history, and religious studies. It also runs a publication series for academic works in Arctic social science translated from English, Russian, and other languages into Chinese.

A Cooperative Doctoral Student Training (CDST) program between the ASC-LCU and the Department of Anthropology at the University of Alaska, Fairbanks, began in 2019. The program is currently recruiting Chinese and international students to study Anthropology with an emphasis on the Arctic and/or Chinese anthropology.

The founding director of the LCU Arctic Studies Center is Dr. **Feng Qu**, who received Ph.D. in Anthropology from the University of Alaska, Fairbanks (UAF). As the author of numerous peer-reviewed articles in Chinese and English, as well as several monographs, his research interests include circumpolar anthropology and archaeology, ethnography of Chinese near-Arctic peoples, prehistoric belief systems and cosmology, and ontological theory. He has many years of archaeological excavation experience and has conducted ethnographic fieldwork in indigenous villages in Alaska and North China. Funded by the National Social Science Foundation of China, Dr. Qu's current project uses Inuit prehistory and archaeology as examples for studying Arctic subsistence strategies based on marine resources. **Henry Collins'** collections from St. Lawrence Island play a central role in this project. His research work on

Collins' collection at the Smithsonian Department of Anthropology may also lead to a future project about prehistoric Inuit ontology in the Bering Strait region.

BURCH ENDOWMENT SUPPORTS 2019 ASC ACTIVITIES

By Igor Krupnik

As in the previous years, the Burch Endowment, established in 2012 by the family of our late colleague, Dr. **Ernest "Tiger" Burch, Jr.**, remained the prime source of funding for various ASC operations during the year 2019. In 2014–2016, the Burch Endowment, together with the SI "Grand Challenges" grant was instrumental to the success of our "Arctic Crashes" initiative (*ASC Newsletter 21, 22, 23*); last year some of the Burch funding was, again, used to support the preparation of the project volume, *Arctic Crashes: People and Animal in the Changing North* to be published by the Smithsonian Institution Scholarly Press in 2020.

Burch Endowment funding was also used to support travel of the ASC members and some of our international colleagues to the 46th meeting of the Alaska Anthropological Association in Nome in February–March 2019 (*ASC Newsletter 26*), where we organized a special session on the centennial of the 5th Thule Expedition of 1921–1924. Our plans for the 5th Thule activities in 2020 and beyond are based on the use of the endowment funds. It also helped cover a portion of the 2019 outreach and travel activities of the ASC Anchorage Office; the production of the 2019 *ASC Newsletter*; research, field, and conference travel of the ASC members and our research associates, as well as our annual membership fees for the Arctic Research Consortium of the U.S. (ARCUS).

By far, the most visible use of the Burch Endowment funds is our annual *Tiger Burch Lecture*. Initiated in 2014, it has emerged as one of the key ASC events for the Museum community and the general public. This year's 'Burch Lecture' was delivered on May 30, by Dr. **Rick Knecht**, currently, at the University of Aberdeen, U.K., discussing the results of his multi-year excavations and outreach efforts with local communities in Western Alaska. We plan to continue using Burch Endowment to advance our research and public programs, in support of conference travel and fieldwork for the ASC staff, and for maintaining our high profile in the international Arctic research community via publications, conferences, annual *Newsletter*, and professional exchanges.

RESEARCH

MEMORY AND LOSS: ARCHAEOLOGY AT KAMESTASTIN IN THE FALL OF THE YEAR*By Stephen Loring*

During times of caribou abundance, autumn at Kamestastin is a place of expectation and excitement. Birds and bears are about, and fish are plentiful, the days are bright and blue, the nights cold, the auroras brilliant. But then, as it happens, the caribou herds decline or disperse, and a sense of silence and emptiness prevails. The country is foreboding and lonesome, a personification of its name—“where it is all blown away.” And always the wind blows.

A few weeks before the expected departure for Labrador, Kamestastin—Lake Mistastin—was suddenly in the news. A DeHaviland Beaver airplane on floats with a party of American fishermen and their guides crashed into the lake, killing all on board. Of the seven, four bodies were later recovered, but the others and the wreckage of the plane itself had disappeared. **Anthony Jenkinson** and I returned to the Tshikapisk cabins near the outlet of the lake shortly after the RCMP had abandoned their search, having found little that would illuminate the cause of the crash or the fate of the missing while adding further to the prevailing sense of mystery and haunting that is an almost tangible part of the place.

For the duration of fieldwork, mid-September to early October, we were, for the most part, confined to the camp environs, first as the autumnal winds inhibited travel on the broad lake expanse and then, as it turned out, by the intensity of the excavations that held us in thrall. I think we were both a bit relieved not to range too far on the lake. It was unnerving to be constantly scanning for caribou and Ramah chert while dreading to chance upon wreckage or remains from the crash.

Tshikapisk fieldwork was concentrated at two significant early sites, one on the south and the other on the north side of the caribou crossing place adjacent to the outflow at the northeast corner of the lake. We returned to the Shak Selma site (GICs-22) that we discovered during our initial survey of the region in 1998 and revisited in 2012 and 2018. Previous work had resulted in an assemblage that included a single quartz nipple-based point, broken pieces of quartz, and debitage derived from quartz crystals. In 2018, excavations focused on an adjacent concentration of quartz tools and debitage and an associated “combustion feature” and an ochre- and debitage-filled pit. Wood charcoal recovered from the feature produced AMS dates of ca. 7,300–7,400 cal. BP, making it the



Anthony Jenkinson and Tutut inspect the pit feature at Shak Selma (GICs-22). Photo by Stephen Loring



Mistanuk-Mistamunik (GICs-8) overlooking the caribou crossing place at Kamestastin Narrows. Photo by Stephen Loring

earliest dated assemblage we have at Kamestastin.

We returned in 2019 to finish excavating the pit feature. The pit proved to be about 75 cm in diameter and 140 cm deep. It was filled with broken quartz debitage, a small stemmed quartz projectile point, and a single distal biface fragment of grey chert, all associated with a light dusting of red ocher. A small tennis-ball-sized water-rounded rock was also in the pit fill. We can only hazard an explanation of this feature—and apparent ritual deposition of broken tools and tool manufacturing debris, fire, and red ocher. The small rounded stone has striking parallels to the discussion of medicine stones (grandfather stones) *gimishoomisinaaniwan asiniig* among the Anishinaabe that has been elaborated by **Irving Hollowell** (1960) and more recently (and eloquently) by **Maureen Matthews** (*Naamiwan's Drum*, 2016). Although the nuances of the language and meaning of the pit feature elude us, we cannot help but be haunted by its implication for the pervasive linkage of ritual and place that is (and has been) inherent in Innu philosophy and practice down through the millennia.

Moving across the narrows to the north shore, we spent most of the season working at the Mistanuk-Mistamunik site (G1Cs-8) situated on a high broad terrace bounded by a stream at the east end of the lake. The site provides a commanding view over the caribou crossing place and the river as it leaves the lake.



Stratigraphy in Labrador! The main combustion feature at Mistanuk-Mistamunik was surrounded by pockets of calcined bone and deposits of red ocher mixed with micro-flakes of Ramah chert. In the upper left the brown sandy slope wash covers a black organic humus layer and a thin band of white aeolian sand that covers the occupation level. Photo by Stephen Loring



This stemmed biface appears to be made of the obsidian-like impact melt material. Its surface has been partially polished by wind-blown sand, dulling the glassy appearance. Photo by Stephen Loring



Caribou migrating at Mistanuk-Mistamunik in October 2006. In 2019, we saw only one bull and the tracks of another half-dozen. Photo by Stephen Loring

A 6x5 meter block excavation revealed the remains of a tent structure with several hearth features. While the southern margin of the site nearest the terrace edge was barely covered by a thin sandy layer and caribou moss vegetation, the northern portion was buried by several layers of slope wash, sand, and organic soils that neatly sealed the occupation floor. A large basin-shaped hearth that we call a “combustion feature” was surrounded by deposits of calcined bone (presumably caribou and currently being analyzed by **Arthur Spiess**) and by dedicatory offering (?) deposits of exceptionally small Ramah chert pressure flakes mixed with red ocher. An assemblage of small bi-pointed bifaces, quartz expediency tools, and pumice polishing stones were recovered as were broken bifaces (midsections and distill ends) and debitage of Ramah chert. Three samples of calcined bone returned calibrated AMS dates between 7,100 and 6,900 BP.

The most extraordinary find, however, was a complete 13-cm-long stemmed biface that appears to be made from the obsidian-like impact melt from a shallow deposit on the top of Kamestastin Mountain (Walcott Dyke) at the western end of the lake. This distinct lithic source was first referenced by **William Brooks Cabot**, who searched unsuccessfully for it in 1910, having been guided to the spot by Innu informants who told him it was where “the old-time Indians got their arrow-head material” (Cabot 1912). In 2010, accompanied by Tshikapisk students and colleagues, the

source for the obsidian-like impact melt (resulting from the meteorite impact 36 million-years ago that blasted out the Kamestastin basin) was relocated and samples acquired. The Mistanuk-Mistamunik biface is the first appearance of this raw material in an archaeological assemblage. While it may (and probably will) appear in sites of less antiquity, for the moment, it poises the intriguing possibility of specific knowledge passed down over almost 7,000 years of Innu and ancestral Innu land occupancy. (I am reminded of the archer carved into stone, one of the images at the Sanilac Petroglyphs in Greenleaf, Michigan: according to Anishinaabe tradition, it is *Ebmodaakowet*, the archer seen shooting knowledge into the future).

The snow had fallen, and there were icicles in the brook when the silence of Kamestastin was interrupted by the arrival of the Air Borealis charter to carry us back to town. The geese had already preceded us south, of the caribou—of which a few years previously had passed in the thousands—we saw but one. Even the ravens and the sparrows had gone away, leaving only the black bears to lord over the hills.

GATEWAYS 2019 AND THE MISFORTUNE OF THE GRAND ISLE INUIT

By William W. Fitzhugh

The Smithsonian's Gateways Project continued excavations on the Quebec Lower North Shore (LNS) in 2019 at Inuit, Basque, and boulder pit sites in Bonne Espérance Municipality (Salmon Bay and St. Paul River), Belles Amours, and Brador. Our investigations were undertaken jointly with a team from the University of Montreal and their supervisors, **Brad Loewen**, and **Erik Phaneuf**. Since 2001, Inuit sites have been found throughout the LNS from Brador to Petit Mécatina, with one exception: St. Paul River/Salmon Bay, the coast's richest ecological zone. The obvious question was, why?

Samuel Robertson, a long-term LNS resident, provided a possible clue. In his 1843 report to the Historical Society of Quebec he described the oral history of a battle on Esquimaux Island near the mouth of St. Paul River. Here, Inuit had "fortified themselves in a camp, with walls composed of stone and turf, with a ditch outside in circuit more than half a mile. . . . In this fort, they maintained themselves till about 1640, when they were assaulted by the Mountaineers [Innu] aided by the French, and were either totally extirpated or expelled. In this assault, it is said, more than 1000 were slain" (Robertson 1843: 45–46). Although the numbers have been questioned (Martijn 1980: 109), there is no doubt that the Inuit appearance on the LNS resulted in conflicts

that continued sporadically throughout the 17th and early 18th centuries after the Basque decline in the late 1500s opened the way for Inuit penetration. Numerous historical accounts are known, and archaeological surveys have documented sod house villages at Brador, Belles Amours, Jacques Cartier Bay, and Petit Mécatina. The location of a fifth settlement east of Tabatière in the Ha! Ha! Bay is still unknown. Searches by **Charles Martijn** in the early 1970s and more recently by the Smithsonian revealed no earthworks, burials, or other sites on Esquimaux Island. In the meantime, recent work on nearby Grand Isle has uncovered evidence that may explain Inuit avoidance of this region and the origin of Robertson's oral tradition. But first, some general field results.

2019 Site Reports

Belles Amours Pithouses (EiBi-24). Boulder pits and mounds are present on raised beaches throughout the LNS but have rarely been scientifically investigated. The Belles Amours structures reported by **René Levèsque** in 1968 include two large sub-rectangular dwelling features with multi-tiered walls, level interior cobble floors, and small cache pits outside their walls.

Most of the other seventeen features are probably caches. We spent two days mapping the site, which lies 4–5 meters above sea level on the northeast side of Belles Amours Peninsula. In 2020, we plan to excavate some of these features and map others between Blanc Sablon and St. Paul River to determine elevation, extent, types of cultural features, functions, age, and cultural affiliation.

Grand Isle-1 (Kettle Head, EiBk-3). Martijn's (1974) "Kettle Head" site is located 35 meters above sea-level on the northeast corner of Grand Isle, a few kilometers south of Esquimaux Island in the St. Paul archipelago. Its eleven boulder structures include caches and at least two dwellings identified by their large size and external caches. The site—probably originally Maritime Archaic—has been damaged by re-use, looting, weather, and boulder removal. Around 1970, a local fisherman named **Leonard Thomas** found Inuit skeletal remains and historical period Inuit artifacts in one of the pits.

Grand Isle 2 (L1; EiBk-54). In 2016–2018 we excavated a 4x8m rectangular sod-walled dwelling located at the edge of a beach-front terrace where Leonard Thomas' family used to find arrowheads. Martijn recorded the area as EiBk-4 but did not recognize the house foundation (L1) or the pithouse structure (L2) fifty meters away on a higher beach. The rectangular structure turned out to be an Inuit fall season tent dwelling known as a qarmat, whose north half had already been destroyed by the sea. Excavation revealed 16th–17th-century Basque

roof tiles, iron spikes and nails, European ceramics, a soapstone pot fragment, and the remains of a collapsed roof of wooden poles. Ramah chert debitage showed that the terrace was used extensively in prehistoric times by Innu ancestors.

Grand Isle 2, L2, (EiBk-54). Investigating the pit-house fifty meters upslope from the qarmat was our major project in St. Paul this summer. Testing in 2018 had uncovered an entrance tunnel whose paved floor produced artifacts similar to other 16th–17th-century LNS Inuit sites. Our 2019 excavation revealed a pit-house with a floor of nailed conifer planks and two large oak planks (4 cm x 43 cm x 6.5 m) scavenged from a shipwreck. The house had been excavated into the earth along its east and south (rear) sides, and on the rear sleeping bench, we found the charred and collapsed remains of the south wall which had been built of stacked logs. A sod wall extended along the west side of the structure, but there was no sign of a sod or timber wall on the north side, where we assume



Grand Isle-2, L1 (EiBk-54) Inuit qarmat (tent-house) excavation in 2018. The house center was excavated in 2017. Photo by William Fitzhugh

a wall of snow blocks had been fashioned. Finds from the floor included fragments of soapstone pots, a roof tile oil lamp, iron rods fashioned into harpoon fore-shafts, whale bone sled runners, iron nails and knife fragments, glass, and European earthenware. Other than nails and tile, however, European materials were few, and there were no glass beads or clay pipes, thus suggesting a date in the early 1600s. Below we provide an interpretation of this unusual dwelling.

Bonne Esperance 1-4 (EiBk-55, 56, 60, 61). Previously, we had explored southern Bonne Espérance Island, where **William Whiteley** established a cod-fishing station in the mid-1800s. This year, around the Whiteley shore facilities (BE-1, EiBk-55), we found 16th–17th-century Basque tiles and ceramics dating

to the 18th–19th centuries, and off-shore, a thick layer of codfish bones. At the smaller BE-2 (EiBk-56) site several hundred meters north of BE-1, we again found tiles below later European deposits. This pattern continued when our divers found Basque tiles and ballast rock at two other locations along the “Bony Narrows” at BE-3 and 4 (EiBk-60, 61), and adjacent land sites with stone-mounded try-works and domestic finds. These sites could be the source of the Basque material used by the Grand Isle Inuit.

Hart Chalet (EiBh-47). We also expanded previous work at the Hart Chalet Inuit winter settlement near the mouth of the Brador River. New units in the midden and interior of House 2 produced large quantities of caribou bones and small amounts of seal and other mammals, and fish and birds. Artifacts included a second silver coin similar to the Louis XIII 1632–1634 coin found previously in House 2, stoneware, nails, an iron knife and ulu fragments, a lead musket ball, copper bands, beads, bottle glass, clay pipes, a whalebone sled



Grand Isle-2, L2 (EiBk-54) Inuit winter house excavation with entry passage at lower left and snow block north wall area to right. Photo by William Fitzhugh

runner, and pieces of two large flat (French?) bricks. Midden units outside House 1 produced beads, copper and lead ornaments, iron points, harpoons, stoneware, and nails. After it was abandoned, House-2 had been used as a dump, so the three Hart Chalet houses may not have been occupied simultaneously.

Further west along the coast, we searched for but did not find the elusive Ha! Ha! Bay Inuit village, mapped the three sod houses at the Little Canso Island Inuit site and tested the Boulet Harbor Narrows site, which we found to have a strong Basque component.

Archaeology Meets History

Robertson’s report provides one of the few accounts of Inuit activities in St. Paul. There are no firm dates for

the Esquimaux Island battle, but it probably took place during the early 17th century. A more specific record from the 1690s comes from Jolliet's comment: "Malouians [St. Malo fishermen] destroyed an Inuit raiders' village at St. Paul River" (Delanglez 1948:215). It would appear that hostilities continued over a long period.

Our new information from Grand Isle helps explain the reason for the absence of a multi-house Inuit village in St. Paul, Basques, and perhaps other Europeans, would have been exploiting the St. Paul fishery from its fine harbors in the 16th century before Inuit appeared. In the decades after 1600 when Inuit began establishing settlements elsewhere along the LNS, one family chose to settle on Grand Isle at a location formerly used by generations of Innu, and near Basque whaling stations on Bonne Espérance.

Arriving in summer, the Inuit had iron nails and tools, roof tiles, and a few European ceramics, but no firearms, and they still depended on their traditional



Bonne Espérance-4 (EiBk-61) Basque try-works and domestic site, view to north. Photo by William Fitzhugh

soapstone lamps, cooking pots, and hunting technology. For the first few months, they lived by the shore in a small sod-walled tent known as a *qarmat*, but as winter approached, they began building a more substantial semi-subterranean winter dwelling. Digging into the hillside, they excavated and paved a covered entrance, leveled the interior, laid a plank floor, reinforced the uphill side with logs, built a sod wall on the west side, and raised a roof. As we discovered, for whatever reason, the north wall—at least the usual wall of turf, stone, and timber—was never completed. Instead, perhaps when the ground began to freeze and sod could not be cut, they constructed a wall of snow blocks in the manner of an igloo. Thus protected, the family settled down for winter, enjoying boiled and roasted caribou whose bones we found in an external hearth

and around the edges of the dwelling. It does not seem that our family lived in their winter house even one full year or more artifacts would have accumulated, and they would have completed the north wall. Sometime in late winter or early spring, the house burned. Patches of charcoal were present on the floor, and the rear wall was reduced to a mass of charred logs.

Reconstructing events and social behavior from archaeological evidence is always tricky, and sometimes, given its ambiguity, we err on the side of the dramatic, especially when shreds of evidence lean in one direction. In the case of the St. Paul Inuit, we know that a small Inuit group built and lived in a *qarmat* at a well-known sealing place on the north shore of Grand Isle occupied previously by prehistoric Innu, if not also their historic descendants who were opposing Inuit expansion. The Inuit began to build a traditional Inuit winter dwelling nearby but did not complete it before winter set in; instead,



Excavations at Hart Chalet House 1 (EiBh-47), an Inuit winter site at Brador. View south. Photo by William Fitzhugh

they finished its north side with snow blocks. After living there for some months, the house burned. A fire of this magnitude would not have been accidental. Considering the social context of the LNS in the late 16th and 17th centuries, it seems likely that the Grand Isle Inuit were attacked, like other Inuit settlements on the LNS between 1620–1728. The absence of glass beads, clay pipes, and Normandy stoneware common in 17th–18th-century LNS Inuit sites suggest a late 16th or early 17th-century date for the Grand Isle sites.

Connecting the Dots

The final piece of evidence pointing toward a Grand Isle tragedy comes from Leonard Thomas' discovery of Inuit skeletal remains and grave goods in one of the

Kettle Head pit-houses on the hilltop a few hundred meters from the Grand Isle 2 dwellings. The bones were scattered, but **Medric Thomas**, one of Thomas' sons, recalls seeing most of one skeleton lying on a flat slab after the boulders covering it were removed. When Charles Martijn visited the site with Leonard Thomas in 1972, he recovered a mandible later identified by forensic experts as Inuit. Rather than being the traditional Inuit cairn burial, the interment appears to have been an impromptu grave in a Maritime Archaic pit-house. Among the grave goods were an iron harpoon fore-shaft, a small piece of iron pointed at both ends, a whalebone snow-knife, a bone scraper or knife-handle, and rolls of birch-bark (Martijn 1974: 123).

The iron harpoon shaft found with the remains is similar to those from the Grand Isle 2 winter house. This, the unorthodox burial type, and proximity to the destroyed Grand Isle house suggest a relationship to the short-lived Grand Isle Inuit settlement. Was this Inuit man a victim of the attack on the nearby winter house? Was this incident the source of or related to Robertson's ca. 1620 Esquimaux Island battle story? Or was Grand Isle the much later St. Paul River target of the St. Malo fishermen reported by Jolliet in 1694? We will never know for certain, but the threads of archaeological and historical evidence make a plausible story from a time when Inuit, exploring and settling a new southern frontier, became entangled with its previous inhabitants—the Innu—and its new European keepers.

Other results from 2019 were not so dramatic but added to the growing archaeological information from the LNS. For the first time, we have detailed maps of two of the hundreds of boulder beach structures known throughout the coast. Grand Isle 1 (Kettle Head) has been damaged by local diggers, but the Belles Amours pit-houses would be excellent targets for future excavation. Hart Chalet rewarded us with a second French coin, and new Inuit ornaments, tools, and faunal remains. We searched for but did not find the missing Ha! Ha! Bay Inuit village near La Tabatière, confirmed Basque activities at Boulet Harbor, and our underwater surveys revealed new Basque sites with ballast dumps, try-works, and domestic features at Bonne Espérance. Future work might reveal these sites as the source of Basque material used by the Grand Isle Inuit.

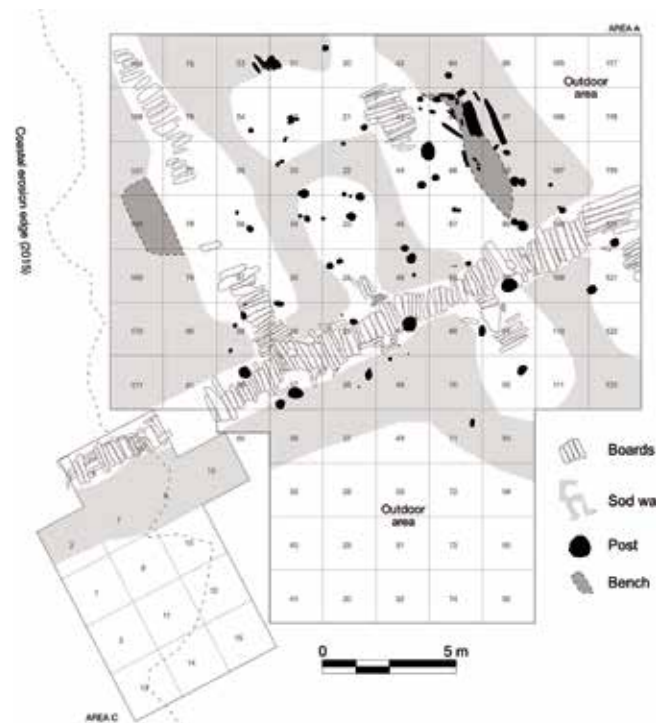
Acknowledgments: Thanks to **Perry and Louise Colbourne, Boyce Roberts, Florence Hart, Eileen Schofield, and Garland Nadeau**, Whiteley Museum, Bonne Espérance, and several Quebec government ministries. Our crew included **Michael Mlyniec and Igor Chechushkov, Ava Hill, Calista Almer, and Noémi Toroczka**. Funding was provided by Smithsonian, Dartmouth College, Notre Dame, and private sources.

COMMUNITY ARCHAEOLOGY AT THE NUNALLEQ SITE, QUINHAGAK, ALASKA

By *Richard Knecht*

The permafrost soils in the Yup'ik homeland in the Yukon-Kuskokwim Delta of Alaska are rapidly thawing with the warming climate, with the effects particularly damaging on the shorelines of the Bering Sea. Soft alluvial soils are being heavily eroded by rising sea levels and decreases in seasonal ocean ice cover, and a single large storm can be catastrophic to both the archaeological record and modern infrastructure.

In 2007, the residents of the Yup'ik village of Quinhagak first noticed wooden artifacts washing up on the nearby beaches, a sign that archaeological sites were being destroyed. To deal with this, **Warren Jones**, of Qanirtuuq, Inc., Quinhagak's ANCSA Village Corporation, and our team at the University of Aberdeen in Scotland developed a community-based solution centered on a partnership between university archaeologists, the corporation, and its constituents in the village. The project addresses two community goals; to rescue endangered archaeological sites and to find ways to better engage local young people with their Yup'ik cultural heritage. Until recent years, the pre-contact Yup'ik archaeology of this vast area has remained poorly known. Beyond the considerable logistical challenges, there is also a cultural reluctance



The latest house at the Nunalleq Site, destroyed c. 1675 AD. Source: Rick Knecht and Nunalleq Cultural and Archaeology Center (NCAC)

to allow ancestral sites to be disturbed. Accordingly, Warren spent many months in discussions with elders and culture-bearers on the village level while I worked on my end with decision-makers at the University of Aberdeen, where eventually, we received generous grants from the U.K.-based Arts and Humanities Research Council and other U.K. funders. By the summer of 2009, we fielded a survey and, within minutes, found a complete wooden doll on the beach. We followed a trail of artifact flotsam until we came

upon a telltale layer of dark soil where pieces of bentwood bowls and house timbers protruded from an erosion face just meters from the edge of the Bering Sea. The area had long been known to local residents who called it 'Nunalleg' or 'Old Village.' In the succeeding field seasons, we have excavated a block of over 500 m², removing more than 750 m³ of the material before it was lost to the sea. This level of effort was made possible by extraordinary logistical support supplied by the corporation and the people of Quinhagak along with



Excavation of a plank walkway at Nunalleq. Photo by Rick Knecht and NCAC



Wooden mask melting out of permafrost. Holes along the edges were for inserting the feathers, fur, or appendages seen on ethnographic masks. Photo by Rick Knecht and NCAC



Quinhagak 5th graders inspecting the collections. Photo by Rick Knecht and NCAC

a small army of non-local volunteers. Our team also benefited enormously from elders and tradition-bearers, who helped us puzzle out the past.

The excavations have revealed the remains of at least two semi-subterranean multiple-room houses, probably occupied in succession. The largest and most recent house was occupied between AD 1570 and 1675 and remodeled several times, based on an analysis of forty-nine AMS radiocarbon dates (Ledger et al. 2016, 2018). Side rooms were accessed through plank-lined entry tunnels that led from two larger hallways floored with split driftwood planks. Sod walls were held in place by long pointed wooden stakes, some of them made from recycled kayak frame parts.

The sod house complex was burned and collapsed sometime between AD 1645 and 1675. This was a period of regional warfare referred to in Yup'ik oral history as the 'Bow and Arrow Wars' replete with multiple accounts of burning villages, their residents trapped and smoked out of side rooms by enemies (Fienup-Riordan 1990). Yup'ik oral histories say that this attack was an act of revenge by another Yup'ik village on the lower Kuskokwim River, and our forensic reconstructions of the event so far mirror those accounts.

The destructive results of the attack are starkly evident with thick layers of burnt sod, charred house timbers, and scorched wooden bowls and other possessions on the blackened floors. Human remains were found piled haphazardly outside of the house, some still tied with grass rope and with clear signs of systematic execution. We swiftly reburied the remains off-site after they were documented. This vivid record of pre-contact warfare in Native Alaska has given us an important chronological framework for the Bow and Arrow Wars and connected archaeology with Yup'ik oral tradition.

Earlier occupation layers prior to the attack yielded an extraordinary collection of pre-contact Yup'ik material culture. Preserved until now by permafrost, the Nunalleq collection numbers well over 100,000 pieces, including

full-sized wooden masks, human and animal figurines, hafted tools, leather clothing, bowls, pottery, kayak parts, weapons, game pieces and much more, all in nearly pristine condition. About 80% of the finds were made from wood, grass, leather, and other rarely preserved organic materials. Among the rarest finds are 3,000 grass artifacts, including cordage, dog harnesses, mats, socks, and whole and fragmentary baskets. Bio-archaeological remains recovered from the site include animal bones along with fur, hair, feathers, coprolites, seeds, and insects. Ongoing stable isotope and DNA studies of this material have already shed new light on the Yup'ik past.

Much of the Nunalleq assemblage is nearly identical to that seen in ethnographic collections made 300 to 400 years later, such as Smithsonian's Nelson collection (Fitzhugh and Kaplan 1982). Hundreds of labrets, along with jewelry made from exotic raw materials like a jet, amber, and serpentine, and tools made from nephrite, suggest regular contact with peoples both north and south of Yup'ik country as well as a level of social complexity comparable with better known marine foragers on the Aleutian Islands and Kodiak.

Until recently, the collections were sent every summer to the University of Aberdeen for conservation and processing. But by the summer of 2018, the collection was returned to the newly constructed Nunalleq Culture and Archaeology Center in Quinhagak, which has its own conservation lab and storage facilities. The center is also used to teach traditional Yup'ik arts and skills, such as a recent Smithsonian Arctic Studies Center sponsored grass basketry workshop (Crowell 2019). Yup'ik dancing, reintroduced in Quinhagak after a hiatus of more than a century, also takes place there, led by a generation of young people that grew up in the years since the project began.

The outcomes of the Nunalleq project have far exceeded our original expectations, to say the least. Similar collaborative efforts may be the best hope for rescuing threatened archaeological sites elsewhere in the north and beyond.



Nunalleq Culture and Archaeology Center, Quinhagak, Alaska. Photo by Rick Knecht and NCAC



Wood artifacts being catalogued at the Nunalleq Culture and Archaeology Center. Photo by Rick Knecht and NCAC

THE UMIAKS OF LITTLE DIOMEDE

By Richard D. Mohr

[Ed: Mr. Mohr began a correspondence with the ASC when he saw culture change before his eyes on the boat racks of Little Diomede. His observations parallel those of Stephen Braund's earlier monographic study of skin boats and carry the evolving story of Bering Strait boat technology into the present.]

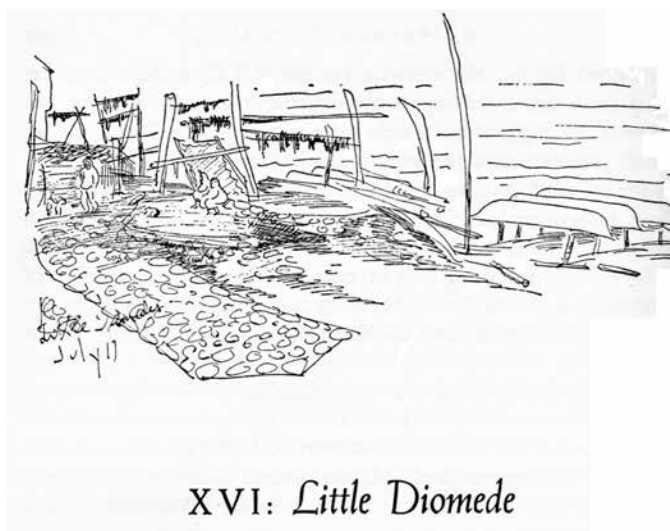
A funny thing happened on the way to Provideniya. In July 2017, during a 'circumnavigation' of the Bering Sea, a last-minute jump-shift in scheduling has me landing by zodiac on the island of Little Diomede—home to 80 Inupiat and 500,000 gyring auklets. The originally planned stop had been King Island—since 1970, population 0. So, suddenly there, in mid-Bering Strait, following in the steps of **John Muir** (1881), **Knud Rasmussen** (1924), **Diamond Jenness** (1926), **Edward Curtis** (1927), and **Henry Collins** (1929), stand I, Joe Tourist. The shift in landing site allowed me to perform a bit of accidental ethnography and citizen science on the fly.

Photographs that I took in 2017 establish the great lengths to which the Diomede hunters have gone to maintain their aging umiaks—those open-hull, walrus-skin-on-frame, multi-tasking workhorses of the Arctic—even as other evidence suggests that the upkeep and use of these skin boats ceased on the island around 2010 or perhaps a bit earlier.

I encountered four umiak frames, all in various states of not-so-fine fettle. None was seaworthy. One was crushed from use as an improvised rack to hold aluminum 'speedboats,' the umiak's replacement of choice for surviving the island's boulder shore. Another ground-bound umiak, though now broken beyond repair, bore traces of repairs to all its structural members. It was studded over with generations of metal cleats attached to brace cracked ribs, stringers, gunwales, and keel. The frame of a third had similar repairs, but was still intact and lofted, in traditional style, on a drying rack out of reach of dogs, but it had no skins with which to tempt their hunger. The fourth boat's frame was racked and intact, with a considerable amount of hiding covering, but still nowhere near seaworthy.

A well-maintained umiak, with hides swapped out every two or three years, can last three to four decades, but the two structurally sound frames appeared to have been retired. Neither of them—unlike the half-dozen or so aluminum speedboats on view—were anywhere near the water, ready for the hunt when sea mammals are sighted.

Walrus meat continues to be the town's principal food source. At several points along the stilt-mounted boardwalks and staircases that, in chutes-and-ladders fashion, link the hamlet's 65 or so mountain-perched buildings, walrus haunches were fermenting in open-topped 18-gallon plastic tubs of the sort that in the South one can buy at Costco or Home Depot. Other



XVI: *Little Diomede*

Sketch by Henry Varnum Poor in 1944, on Little Diomede, in his *An Artist Sees Alaska* (1945, p.202)



Two Little Diomede umiaks photographed by Edward Curtis. Their profiles establish that by 1927 flat-bottom design had already given way to round-bottom, steamed-rib and stringer construction on Little Diomede, before their adoption on St. Lawrence Island in the 1930s. (*The North American Indian*, vol. 20, facing p. 122)



Of four umiaks I encountered in 2017, this 30-footer was in the best condition. Shots from 2013 show the same boat with the same hides in better condition, but still unseaworthy, while later shots show them in still worse condition. No repairs have been made since 2013. Photo by John Nielsen, July 2017



The stern of the same boat shows a supplemental reinforcing block lashed onto the original frame. Nylon rope laces the hides to the frame. Plastic cord became common in the Bering Sea during the 1970s. Photo by Richard D. Mohr, July 2017



Metal butt joint reinforcements
Butt joint stringers
Left one with overlapped piece on gunnel.
Metal for rib reinforcements
Rib broken during building.
Sister support for bow ribs
Double thick gunnel with overlapped splice

A schematic of one of the intact umiak frames shows a mix of old and new. The nails and even the thin metal strips linking the stringers to the ribs, using what is called plumber's tape, are likely to be old, indeed original to the boat, since this technology goes as far back as the 1930s in the Bering Sea. But the metal plates seen here reinforcing joints on the keel and the supports attached to the bow ribs show the lengths to which the Inupiat went to extend the life of a boat. Base photo by Richard D. Mohr, July 2017. Schematic: Dan Joyce, Kenosha Public Museum

cuts were hanging from drying racks facing into ever blowing winds across the International Dateline from Russian Big Diomed Island.

The internet hosts a surprisingly large number of photos and video clips of the stamp-sized village on Little Diomed—photos posted by locals, remotely-sourced school teachers, helicopter pilots, the Voice of America, captains of commercial crabbing vessels, contract workers, the occasional adventurer, photos that incidentally show umiaks. Collectively such photos can also reliably track their absence since umiaks were always stored in the open.

The most recent, reliably dated photograph showing an umiak in working order is the lead photograph in Wikipedia's article on Little Diomed, a 2008 U.S. Coast Guard aerial shot of the town showing two umiaks on a drying rack near the shore, one fully skinned and ready go, except that, tellingly, immediately behind it shoreside are two aluminum boats. They are the ones ready to hunt on a second's notice.

A shot from 2010 may show a boat in working order, but, beyond that date, such photography offers no evidence of boats being maintained or used. By 2013, there are no functioning umiaks on view; by 2014, the umiaks lay as I photographed them three years later, and as they have remained even more recently. It appears that the umiak tradition at Little Diomed is at its end. Given the transparency of umiak storage, we have a rare but clear case where, to quote the late anthropologist **Ernest "Tiger" Burch**, the existence of no evidence constitutes evidence of no existence.

Lest these observations appear to be one more contribution to the "end of the trail," consider the wider history of umiaks in the Bering Sea. At Little Diomed and King Island, the hunting boat of choice passed through three stages: first, there were the flat-bottom umiaks, used up to the 1920s; then, more maneuverable round-bottom umiaks, which could be fitted with a small outboard motor that became available to Bering Sea peoples after 1916; and finally, even more maneuverable, powerful, and easily launched aluminum speedboats, introduced to the Bering Sea in the 1940s. Initially used mostly for summer travel, they have come to be used for hunting, increasingly so as there is less sea ice now than in previous decades to trouble them.

On St. Lawrence Island, there were four stages of transition. Wedged in between the flat and round bottom umiaks was a period, roughly 1910 to 1930, when the Yankee-era wooden whale boat, was the vessel of choice. Due to their great weight and easily damaged construction, whaleboats, which were great for landing on the broad beaches of Saint Lawrence Island, could

not be landed on the boulders of King Island and Little Diomedede, and so were never used there. But because the whaleboats were prone to damage in ice and all but impossible to repair by local hunters, they fell out of favor on Saint Lawrence Island, and the Islanders opted instead for the new, bent-wood, round-bottom umiaks, whose technology they also adopted around 1930, as described in **Stephen Braund**'s research. So, here we have a case of indigenous people rejecting a white technology in favor of their own. This 'evolution' strongly suggests that all of the shifts in the adoption of boat designs were considered choices by indigenous people based on what worked best for them.

Go, Dateliners!

THE TASIILAQ UMIAQ

By Sheila Romalis

Over the many years of my doing research in East Greenland, starting in 1980, on the traditional tupilaq spirit figures, I saw many kayaking displays in Kulusuk (formerly called, "Kap Dan"). However, only one sailing of the community *umiak* (Greenlandic spelling versus Alaskan '*umiak*') in Tasiilaq (formerly called '*Angmagssalik*.') Usually this *umiak*, which had been made in the 1970s, was stored on a wooden rack, open to the elements, next to the old sod house and close to the old church that became the Tasiilaq Museum in 1985.



It was a pleasant surprise in June 1990, when I came to Tasiilaq for a wedding within the family that had pseudo-adopted me in 1981, only to now find the community *umiak* next to the museum, upside down, sitting on blocks and being repaired. I had never seen a skin boat being made, and I felt that this was a great opportunity to watch the repair process. The *umiak* had been in dire condition, needing new skins, and major repairs were necessary to make it seaworthy. I decided to document the proceedings from that point in time, seeing as it was

almost finished, and I tried to fit my visits to the *umiak* into the few spaces I had in my busy wedding schedule. If I arrived at different times of the day for six days in a row, recording what I saw, I felt that it would give me a true understanding of how an *umiak* was constructed.

An East Greenlandic traditional *umiak*, rowed by women, usually had women, children, elders, household goods, tents, and even dogs transported in it during the summer season. They were given the name "women's boats" because women did the rowing. Men would only row the *umiak* when they went hunting for whales and needed great strength, and a large boat was needed to bring home the catch.

To make an *umiak*, they used depilated bearded seal skins that had been stretched on wooden frames and stitched together and lashed over a wood-ribbed frame. Once sewn in place, skins were treated with blubber, and seal fat was rubbed in, making the skins darker and more water-repellant. This construction method made these



Left: Women rowing from the Harbor to the gathering place, "Iddimini". Photo by Ole Jensen.

Right: Photo from Paul Madsen's home of a Peter Rosing 1930's painting of an umiak excursion. Photo by Sheila Romalis

boats the best sea-craft for transportation in the climate and sea conditions the East Greenlanders encountered.

Umiaks were anywhere from 4 to 8 meters in length, and on the East coast, they were slightly shorter and broader than those made on the West and South coasts of Greenland. There is no record in ship's logs or journals of any *umiaks* having had decoration applied to them or to their oars. Oars were made from wood and usually were short, with a rounded blade. The largest *umiaks* were known to hold 20-30 people. Once at sea, a tear in the boat's skin cover did not necessarily mean the boat would sink. A piece of blubber, as a stopper, was pushed into the hole, and when the craft was brought ashore, it



*The umiaq with new skins almost completed, gunwale lashings shown, and a "tsakker" (ulu) resting on the boat bottom.
Photo by Sheila Romalis*

would be mended with the needle and extra sinew thread that had been brought on board at the start of the voyage. Surprisingly light, this vessel was easily pulled from the water onto land or at sea when they met ice floes.

Gustav Holm, the first European to arrive in Angmagssalik and meet the Ammassalimiut (East Greenlanders), landed in 1884. He came with a scouting party that used umiaqs rowed by South Greenlanders. Considered the only sailing craft to use when journeying through pack-ice, the umiaq was mentioned in eighteenth and 19th-century journals and logs of Navy officers and merchants such as **Peder Olsen Walloe**, 1748, and Lieutenant **W. A. Graah**, 1829. Sea captains wrote that the umiaq was the best boat to maneuver through ice-filled waters in West and South Greenland, due to its light weight, shallow draft, and non-rigid outer shell of skins.

The Tasiilaq umiaq had decomposed enough to produce many holes and rips, and several of the skins had slowly been disintegrating. To repair this was deemed a major job, so two women, **Kristiane Singertaat** (from Isortoq) and a woman whose last name was **Umerinaq** from Kulusuk were brought in. All the sinew they used to stitch the skins together had to be worked on beforehand to make it more pliable. In traditional times this was done by soaking it in urine, or by chewing on it, or both. These two women told me, through an interpreter,

that the sinew they were using had been soaked in white vinegar for several days and then rubbed with seal blubber. For doing the repairs, the tools they used consisted of stainless-steel needles, each woman's own "tsakker" (East Greenlandic woman's knife which has two prongs connecting the handle to the blade, as seen in the photo), pliers and stainless steel thimbles. Only bearded seal skins were used for this restoration, with the *tsakker* used to trim and cut the skins and sinew. Then the needle and thimble were used to push the sinew thread through the hides. Pliers were needed to pull the needle through the very thick, double layer of skins. One woman sat on top of the overturned umiaq, while the other sat underneath in order for the needles and sinew to be passed back and forth through the tough hides. In traditional times, the frame was made of wood, using knives and adzes to cut and fit the wood together, and sinew to bind the pieces together.

Sewing was done with short, basting stitches. I could see how difficult it was to make the needle go through and to give the right amount of pressure needed to push through the skins because, after only 10 or 12 stitches, the women had to stop and rest. But they persevered and completed the restoration about two weeks after I returned to Vancouver, Canada. The repaired umiaq was then used to transport women and children every June 21, Greenland's National Day, the short distance from the harbor to the traditional community gathering

place, Iddimini, the peninsula behind the Heliport. The skins were replaced on this umiaq again just before National Day in 2016.

The Tasiilaq umiaq was badly damaged in the winter storms of 2018, so it was not used on National Day, 2019. It was so ravaged that winter that it has not been repaired again. I just heard that it was doubtful it could ever be repaired. The community of Tasiilaq might have to build an entirely new one, and I am hoping that it might be done while I am there in June-July of this year, 2020.

THE ARCANE NATURE OF BOULDER PIT ARCHAEOLOGY

By William W. Fitzhugh

This summer, our archaeology crew spent a few days surveying two boulder pit sites on the Quebec Lower North Shore. One was at Kettle Head on Grand Isle in St. Paul River Bay. The other was on the east side of Belles Amours Peninsula near Blanc Sablon and Brador. Thousands of these boulder features are found on raised boulder beaches along the coast of Labrador, Newfoundland, and the northeastern Gulf of St. Lawrence. Investigating them presents a challenge because they have no soil stratigraphy and are hard to interpret because artifacts are rare or have fallen beyond reach into the rocks below. In addition, the absence of diagnostic artifacts, charcoal, or other organic remains makes them hard to date.

Boulder beaches occur when a coastline has been exposed to heavy seas, and the surf has washed out the finer sediments, leaving the heavier rocks in place. In glaciated terrain undergoing post-glacial rebound, these boulder strands have been uplifted, forming boulder ‘beaches’ that may stretch for hundreds of meters between headlands. Some localities have uplifted boulder beaches that begin near the upper marine limit 8,000–10,000 years ago, followed by successively lower beaches and terraces down to the modern shore. Where raised beaches occur, they can provide a relative chronology for archaeological sites because features at higher levels are usually older than ones below, since people tend to live close to the current shoreline.

The open spaces between boulders prevent soil from developing, so boulder fields and beaches often have no vegetation or forest cover. This makes them ideal locations for people to construct a variety of features, such as shelters, dwellings, hunting blinds, food caches, burials, and other structures. Sometimes we find whole ‘villages’ built on boulder beaches, with dwellings, caches, fireplaces, boat racks, shooting blinds, and graves—all built of boulders. On Cape New Ferolle in

western Newfoundland, we found a causeway of cleared rocks angling up a slab rock beach that may have been for launching or hauling boats or loads of timber or ice.

Because boulder features are easily recognized and so frequently encountered, one is challenged to ask, who made them? What were they used for? And how old are they? The most common features are meat caches, which are seen as boulder mounds several meters in diameter and a meter or so high. Most were made for storing harp seals killed when their annual migration brings thousands of animals within reach of hunters from November to January. The only way to preserve large catches was to store them in boulder pits covered with rocks to protect from scavengers. Most of the caches we find have been emptied, leaving a conical-shaped pit 1-2 meters deep with an irregular raised rim of tossed boulders around the perimeter. Meat caches could have been used repeatedly over many years until land uplift removed them from the active shore, in which case, hunters would build new caches closer to the new shoreline. In rare cases, when the meat was not retrieved, excavation might reveal animal bones, but under subarctic conditions, bones decay within a few hundred years. Boulder beaches are good places for caches because the absence of soil allows air to circulate through the boulders, reducing spoilage.

Meat caches rarely reveal their cultural identity because they lack distinguishable archaeological or structural features and generally do not contain artifacts. However, in some cases, we find clues. Groswater Dorset and Maritime Archaic sites often have small 1-meter diameter conical caches adjacent to their dwelling structures. And at Mason Island in southern Groswater Bay, we excavated a cache in a sandy beach that was capped with a ring of flat rock slabs and had slabs lining the sides of a pit that contained charcoal dating ca. 1,000 CE. At Ballybrack on the east side of South Aulatsvik Island and at Nulliak between Hebron and Saglek, we excavated boulder mounds that turned out to be Maritime Archaic burials rather than meat caches. Human burial mounds normally occur in sandy deposits and are capped with boulder pavements or mounds and frequently are placed at high elevations that provide views of the surrounding countryside.

Other types of boulder structures can often be identified by their architectural features. For instance, hunting blinds are usually semi-circular piles of rock about 1 meter high, located at places frequented by game. Small conical pits or small stone boxes on the surface were used for storing bird eggs, and in Greenland slab boxes were constructed to encourage eider ducks or geese to nest inside them so people could raid them for eggs and down. Boulders are also used as waypoints and direction markers by placing them singly or in stacks where

they stand out in the landscape. When associated with Inuit settlement sites, such piles were used as stands to support kayaks, keeping them dry when not in use. One of the most common types of boulder features found near Inuit sites in the Eastern Arctic is oval rock cairns containing human burials, sometimes accompanied by the deceased's tools and weapons, or a soapstone pot.

Boulder beaches also provide places for people to build temporary or semi-permanent dwellings. At times of the year when the ground is frozen and snow-covered, the only way to make a meat cache or create a shelter quickly is to remove several layers of boulders from the raised beach and make a roof of skin-covered poles. Dwellings can usually be distinguished from cache pits by their flat floors, slab pavements, doorways, or features like fireplaces and external caches. Cache pits, on the other hand, usually are smaller and have conical walls and no internal structure. Nevertheless, sometimes caches and dwellings can be difficult to tell apart. We have found single-person pit shelters that looked like caches until

we identified external cache pits and found charcoal or artifacts on an interior floor. One such shelter on West Indian Island in Groswater Bay produced charcoal from a hearth 6,700 years old, enabling us to identify the site as a Maritime Archaic hunter's overnight camp.

Kettle Head and Belles Amours

The high Kettle Head site (EiBk-3), became known as an important site on the Quebec Lower North Shore when it was reported by **Charles Martijn** (1974) to contain an Inuit grave. A local fisherman named **Leonard Thomas** had found an iron rod (probably a harpoon foreshaft), a whalebone snow-knife, and rolls of birch-bark together with parts of a skeleton, including a skull, when he excavated a boulder pit high on the hill behind his fishing camp on Grand Isle. The tools and skull were identified as Inuit, and the find seemed to substantiate 19th-century reports of a battle that had taken place on nearby Esquimaux Island in the 17th or early 18th century (Robertson 1843).

The find seemed unusual to me because Inuit from the pre-Christian era buried their dead in rock cairns on the surface of the ground, not in boulder pits. Several years ago, **Garland Nadeau** and I visited the site, which is in a small field of boulders that accumulated when sea

level was 35 meters higher than the present, probably between 6,000–9,000 years ago. The boulders occupied an area about 20 by 30 meters in a shallow depression in the surrounding glaciated bedrock. Sometime after the boulders emerged from the sea, Maritime Archaic people excavated pithouses and caches among the boulders, piling the excavated rocks around the rims of the structures. We had seen these types of high-elevation sites many times, and charcoal and tools found in some of these sites in Labrador identified them as Maritime Archaic. Unfortunately, Thomas had disturbed most of these structures after finding the Inuit materials.



Belles Amours, House 2 (EiBi-24), one of several intact boulder structures. Photo by Mary Maisel

I believed the Inuit grave probably was a later intrusion, and so this past summer **Michael Mlyniec, Calista Almer, Noémi Toroczka, and Igor Chechushkov** spent a couple of days mapping the pits. They identified ten boulder features, of which six appeared to be house pits because of their large internal space (>7.5 m²) and associated small external caches, while the remaining four seemed to

be free-standing meat caches of smaller size and conical shape. Martijn's report did not indicate which feature had contained the Inuit materials, so the team selected Structure 4, one of the probable houses, and in a couple of days 'excavated' (tossing out) its internal boulders. Several layers of boulders were removed until bedrock was reached without finding artifacts, bones, charcoal, or other cultural materials. One hopes that finds that dropped through the boulders might collect at the bottom, but not so in this case, so it was not possible to identify the makers of this structure. But given the high elevation, the authors almost certainly were Maritime Archaic people engaged in hunting harp seals during the late fall migration. The other structures were so severely damaged by Thomas and later local collectors that we decided little more could be learned from Kettle Head.

Returning to the problem of the unusual Inuit grave, we believe this was an intrusive event, placed in one of the old house pits during the time when the Grand Isle 2 fall and winter houses were occupied (see the accompanying report on our Grand Isle work in this NL for details). Our excavation of the winter house at the bottom of the hill below Kettle Head showed that this dwelling was destroyed by fire, almost certainly in an attack, at the end of its first winter of occupation.

We surmise this may have happened around the time of the battle on Esquimaux Island between Inuit and Europeans; the Inuit buried at Kettle Head may have been a casualty of that battle or other skirmishes around the time when Inuit were expanding into Indian territory along the LNS and were facing reprisals both from Innu and Europeans. Inuit burials are almost unknown along the LNS, despite the fact that we have identified several multi-house Inuit villages between the Strait of Belle Isle and Petit Mécatina whose duration spanned about one hundred years, ca. 1630–1730. The Kettle Head burial is the exception, unusual in not being a cairn burial and because of its placement in an ancient early pit-house, suggesting an impromptu ritual following the destruction of the nearby dwelling. Even so, the placement of tools at the gravesite in accordance with Inuit tradition suggests an Inuit was involved.



Inuit snow-knife recovered by Leonard Thomas from Kettle Head Inuit burial on Grand Isle, on display in the Middle Bay Museum. Photo by William Fitzhugh

Late in the season, our team mapped the Belles Amours Peninsula boulder field site. This time, we could not conduct excavations, but we recorded nineteen features. The site included several features that clearly indicated their function as dwellings, having carefully leveled cobble floors, double-tier boulder wall constructions, entries, and small external caches. These features are part of a cluster of houses and caches only five meters above sea level, ruling out the possibility of Maritime Archaic origin. More likely, they were made by later Indians 2,000–3,000 years ago, or possibly Groswater Paleoeskimos, whose artifacts we found in boulder structures on Gros Mécatina Island. On higher beaches at Belles Amours, there is a second cluster of pit features more likely to be of Maritime Archaic origin. Next summer, we hope to clarify the mystery of the Belles Amour structures, which present some of the clearest examples of boulder pit-dwellings we have seen on the Quebec LNS, and hopefully, we will recover artifacts and datable materials.

The mysteries of boulder archaeology have hidden their secrets for many years. Their prominence has made them targets for unscientific digging by local enthusiasts hunting for arrowheads and other treasures. Most of these local efforts proved fruitless because the sites, while prominent and easy targets, do not readily produce archaeological treasure. However, with careful research, much can be learned about these enigmatic constructions and the landscape signatures they have left for thousands of years.

SETTLEMENT PATTERN STUDY AT TWO QUEBEC BOULDER FIELD SITES

By Calista Almer, Michael Mlyniec, Igor Chechushkov

In summer 2019, members of the Smithsonian's Gateway's Project field crew (**Michael Mlyniec, Igor Chechushkov, Noémi Toroczka, Ava Hill, and Calista Almer**) undertook an investigation into the settlement patterning of prehistoric boulder sites found on the Lower North Shore of Subarctic Quebec. These sites present an opportunity to investigate diachronic change in living styles due to the impacts of environmental and social factors. A landscape-oriented survey of the Belles Amours and Grand Isle-1 boulder field sites was conducted to better understand their organization. The investigations of settlement patterning sought to understand the structure types and layout of the sites and identify evidence for social complexity.

Boulder field sites frequently appear along the shorelines of Labrador and the Quebec Lower North Shore. Located on post-glacial raised beaches, these sites are believed to represent habitation structures and features related to storage and fish processing with dates ranging from the early Maritime Archaic to more recent Indian Periods (6,500–500 BP) including Paleo-Inuit/Dorset cultures (3,000 BCE–1,000 CE). Traditionally, these sites have been dated using climate and geographical data as a proxy for cultural material,



Circular boulder pit-house and adjacent cache at East Indian Island, Groswater Bay, Labrador. Sketch by Katherine Meier

however radiocarbon and artifact typology dating has been possible in some instances.

The Belles Amours site, initially documented by René Levèsque, is located on a raised beach on the Belles Amours Peninsula east of the town of Rivière-Saint-Paul. The site is divided into two parts with a lower section approximately five to eight meters above sea level and an upper area approximately fifteen meters above sea level. The lower field is tiered with the strips of boulders and is approximately 80 meters (E-W) by 550 meters (N-S) with all the features clustered in the northern 300 meters. The upper field is approximately 80 meters (E-W) by 130 meters (N-S). The site more than likely relates to either the Groswater or Paleoeskimo Dorset culture, although exact dates have yet to be established. Nineteen structures were identified from both areas, ten possessing associated features and another nine being stand-alone features. The lower field, comprising the main component of the site, contained sixteen of the structures while the upper field accounted for three. The size of the structures on the lower field vary from 1.5 to 25.5 m². The mean area of the twelve structures (excluding stand-alone cache pits) is 14.8±3.4 m² (at 95% CL).

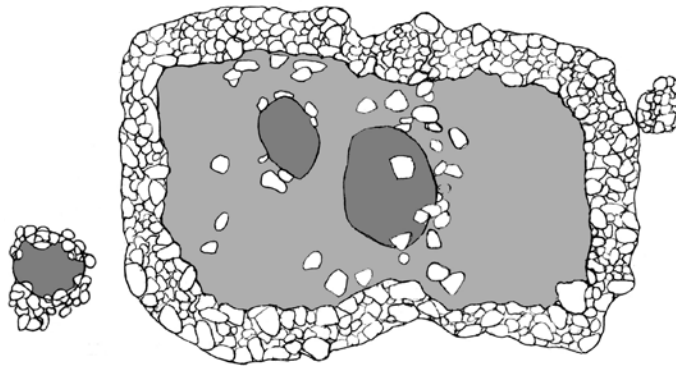
An important aspect of the settlement is the presence of larger structures (structures 10 and 11) located beside each other in the center of the lower field. There are many smaller structures clustered around structure 11, the largest at the site. The complex layout of this area, the larger size of some structures relative to others, and the central location of the largest structure could represent either a communal meeting area or evidence of social stratification within the culture.

The Grand Isle-1 site is located in a boulder field on the flat top of a low ridge above the Grand Isle-2, an Inuit occupation site (discussed elsewhere in this Newsletter), approximately 35 meters above sea level. The boulder field is approximately 20 meters (E-W) by 30 meters (N-S). Though human remains and Inuit artifacts have been discovered here in the past (Martijn 1974), these likely relate to the Grand Isle-2 Inuit site, while the boulder features predate them and likely can be attributed to the Maritime Archaic. Ten structures were identified,

and a number of these can be considered pithouses with associated cache features. The mean internal area is 7.6±2.7 m² (at 95% CL). Additional structures/features were also present, though these were either less identifiable or heavily damaged by local residents.

The inhabitants of the Grand Isle-1 took a different approach to the location and layout of their pithouse constructions. Of the ten identified archaeological features, six structures (structures 4, 5, 6, 7, 8, and 9) having similar features could be considered pithouses. The similar features consist of a total internal area of at least 7.6 m² with an associated feature attached to the southeast or southwest walls. These associated features were possibly used for storage. All structures were built with walls 0.5-0.6 m thick likely due to the need for protection from strong winds in this exposed

location. An interesting structure, labeled as the “Tri-Pit Feature” represents a collection of small, attached pits forming an arc. Perhaps this feature was utilized for community storage, as it is not associated with a particular pithouse like the other caches. Structure 4 was excavated, but no artifacts were recovered. However, Grand Isle-1, due to its location on a high, post-glacial strand-line and its similarity



Belles Amours, House 10 (EiBi-24). Sketch by Noémi Toroczkaï and Igor Chechushkov

to sites of known affiliation, is presumably Maritime Archaic.

Comparing the several features and structures documented in our investigation, the differences in construction (width, length, depth, feature location, etc.) between the two sites is identifiable although but the apparent difference in feature area is not statistically significant due to the small sample size ($t = 2.1$, $p = 0.04$). In conclusion, our settlement data suggests these sites were inhabited by two different groups of people with unique approaches to pithouse construction at two different points in time. Furthermore, regardless of time and location, different cultures used the same material and methods of construction to create culturally unique styles of pithouse communities. Hopefully continuation of this research in future years by the Gateway's Project and others will result in a better understanding of the distribution and the cultural and social patterns of a common and widespread settlement type used by different cultures in this region.

COLLECTIONS

SNOWSHOES OF THE WESTERN CANADIAN ARCTIC AND ALASKA

By Leslie Main Johnson

I have been engaged in a project on drivers of snowshoe design in Northwestern North America over the past several years. Based on my own experience of several different northwestern Canadian indigenous snowshoes and ethnographic research on snowshoe materials and construction in the 1980s, I began a systematic examination of snowshoes in museum collections in 2018. I was seeking information on a range of parameters, including size, shape, materials, regional styles, historical development, and any associated information about age and gender of the wearer(s), and particular information about the use of the shoe such as “trail shoes” or “moose hunting shoes.” After examining snowshoes from the Canadian Museum of History, the Royal British Columbia Museum, the Prince of Wales Northern Heritage Centre, and some smaller museums in Northern British Columbia and the Yukon, I realized that the time depth of the collections I had seen was shallow, with the oldest shoes having firm dates reaching only back to the 1880s. There was also little coverage at these institutions of snowshoes from Alaska. An early paper on snowshoes (Drummond 1916) figured a series of snowshoes from the Smithsonian as well as shoes than in private collections, directing my attention to the collections at the National Museum of Natural History.

Perusing the online catalog of the Smithsonian, I realized that there were a number of pairs of snowshoes in the collection from Alaska and the Canadian Northwest Territories from the mid-1800s, from southern and western Alaska including ethnic boundary areas like Southeast Alaska, Point Barrow, and the

Canadian Arctic, as well as the Yukon/Kuskokwim region. There was also a pair from the Columbia River region dating back to 1835–1841, the oldest pair I had encountered with a firm date of collection. I applied for research travel funding from the Jacobs Fund and arranged to spend seven days examining, measuring, and photographing snowshoes.

Stephen Loring and **Dave Rosenthal** were most accommodating, and I was able to see 40 pairs of full-size snowshoes, five pairs of beautifully crafted model snowshoes, and two remarkable 19th century carved Tlingit figures wearing snowshoes. The geographic range of the snowshoes covered western British Columbia, the western Canadian Northwest Territories, and Alaska, and the single early pair from the Columbia River in what was then the Oregon Territory extended both the geographic and temporal range. The majority of the snowshoes were from the mid-19th century, including key pairs from the 1860s from the Mackenzie drainage in Canada. A couple of significant data points were also added in British Columbia, where I was able to measure and photograph a Gitksan round-toed snowshoe from the 1950s and a pair collected at Bella Coola BC in the early 20th century. Although my initial experience with Indigenous snowshoes was having two pairs of snowshoes made for my then-husband and I by a Gitksan snowshoe-maker from



*Tlingit carved figure (E43238) with snowshoes.
Photo by Stephen Loring*

Kispiox BC in January of 1978, I have since seen only a handful of these snowshoes in museum collections. Their distinctive sharply upturned round toes, long narrow shape, and short tails contrasted with the largely eastern-made snowshoes I had seen up to that point. Subsequently, we visited the Yukon in the 1980s and saw pointed toe snowshoes with a rectangular foot fill, again outside my previous experience. Later, in 1999 and 2000, I had the opportunity to see and walk

in Gwich'in snowshoes on a trapline at Road River, Yukon. These finely made, long shovel-nose snowshoes were perfect for the deep dry powder snow of February in the boreal forest. These experiences sparked my interest in snowshoe design and the match of design to the terrain and prevalent snow conditions.

Although I initially emphasized measurement and documentation of full-sized snowshoe pairs, I found that the miniature snowshoes, which were often early, gave historic time depth to key features of the design, though not of the size and other features which could be correlated with particular uses or ages or gender of wearers. Early Gwich'in style shoes, with beautiful bead ornamentation, stood out. Another pair was probably Koyukon, and an early pair of shoes from Fort Resolution on the south shore of Great Slave Lake in the Northwest Territories were also worthy of note. The pair from Fort Resolution demonstrates the pointed toe design with right/left shoe asymmetry typical of later Dene Soline (Chipewyan) snowshoes. Similarly, the marvelous Tlingit carved figures, especially E043238, provided historical time depth for key features of more recently collected shoes: red pigmentation of the frame, rounded upturned toe, fine hexagonal fill of toe and tail, and rectangular fill of the foot fill area.

For the full-sized snowshoes I examine, I take a whole series of measurements intended to enable comparison with other snowshoes. These are considerably more detailed than the typical measurements included in artifact records. For two-piece frame snowshoes, I first indicate the toe type: is it pointed, round, or with a lap joint. Then I measure the length in two ways: projected length, and length on the curve. For snowshoes with substantial toe upturn, these measurements may differ by several centimeters. Direct measurement of toe upturn is undertaken, as is the measurement of the tail length, front and back crossbars, the width of the shoe at the "bridge" (the reinforced band of the foot fill which forms the bottom of the foot opening, and is also the point on which the wearer's foot pivots), which is often the balance point of the shoe. If the widest point on the snowshoes differs from this place, then it is also measured, and its position noted. Some snowshoes have additional crossbars either in the toe fill or in the tail, or both. The additional crossbars in the toe occur in pointed toe designs with substantial upturn and are designed to hold the fill to the curve of the frame.

Additional crossbars in the tail fill, generally of round-toed types, have a function in the shaping of the tail fill area, enabling inflections in the overall shape. I also characterize the course or foot fill. What is the weaving pattern? Is it hexagonal or rectangular? Does the fill pierce the frame in "stitches" or does it run over the outside? How heavy is the material in the foot fill area?



Leslie Johnson documenting a Tlingit figure wearing snowshoes. Photo by Stephen Loring

If rectangular, how many strands in each direction? Is there reinforcing of the foot opening or other parts of the foot fill? Snowshoes from the Mackenzie drainage often feature a combination, with most of the fill hexagonal and over the frame, while the bridge area may consist of two through the frame heavy strands and other forms of reinforcement.

Finally, I describe qualitatively features of the snowshoe, like materials, condition, unusual aspects of design, and embellishment. Are there pompoms of colored wool along the frame? Is the frame stained? Are there colored patches on the fine or even coarse fill? Are there beads or tufts on a center strand running down the fine fill? Is there decorative openwork, often then carefully colored, in the fine fill? One snowshoe I examined had a couple of remarkable repairs, including a piece carefully notched into the foot fill frame. Another Arctic pair had a bone tool or amulet of unknown function carefully lashed to the frame at the side of the foot fill area.

While I was at the Suitland facility, **William Billeck** of the NMNH Repatriation Office consulted with me about the types of beads found on the centerline of Gwich'in snowshoes. A range of 19th century drawn and wound beads were identified, including "Russian Blue" faceted beads and other black, white, red, and blue beads. One beautiful pair which appears Gwich'in has no attached provenience. The beads on that pair were wound beads that were hand-faceted by pressing them on a hard surface when they were still warm. Embellishment is not obviously functional. Red ochre pigment typical of Gwich'in snowshoes may indicate respect for animals that are hunted, or perhaps offer some kind of protection for the wearer; red ochre is widely regarded as a sacred or special substance in Athapaskan cultures, and it may also have preservative properties. Pompoms may have a function in providing color to reduce the risk of snow blindness. Or perhaps they mark gender or are simply for "pretty." Or possibly they reduce risk of abrasion to the selvage strand, which runs around fine fill areas for attachment

of the web if the selvedge strand pierces the frame to the outside surface. Where the fine fill selvedge does not do this, embellishment of the sides of the frame with pompoms is not an option.

Some high points of the visit: a glimpse of some of the historic Gwich'in caribou hide clothing with quill and bead decoration, and an amazing richly embroidered black velvet robe from Old Crow; and the chance to meet the visiting Inuvialuit delegation who were examining the MacFarlane collection. As I work over my data from the Smithsonian and combine it with data from other museum collections, I will be seeking insights into why the snowshoe frames and fill have the characteristics I observe. Ethnic continuity or "style," prevalent way of life and uses, topography and snow conditions, available materials, and their characteristics, aesthetics, and human ingenuity are all likely factors in why snowshoes look as they do.

Drummond, Thomas. 1916. The Canadian Snowshoe. *Transactions of the Royal Society of Canada*, section 2, vol.3, no. 10: 305–20.

SAGA OF THE *VEGA* EXPEDITION'S CHUKCHI COLLECTION, 1878–2020

By Igor Krupnik and Martin Schultz

In 1878–1879, a Swedish crew led by **Adolf (Nils Adolf Eric) Nordenskiöld** (1832–1901) navigated the *Vega* along the Arctic shoreline of the Eurasian continent from Norway to the Bering Strait, becoming the first European explorer to complete the "Northeast Passage," between the Atlantic and the Pacific Ocean. Known as the "Vega Expedition," it was a model scholarly venture of its time, with an extensive research program in hydrography, meteorology, geology, botany, and zoology conducted by a team of trained scientists. Though none of the expedition participants had a background in anthropology, they collected a massive stock of data related to Indigenous people living along its route, including ethnographic collections, photographs, written observations, population and ethnographic data, archaeological specimens, and materials on ethnobotanical and ethno-ornithological knowledge. The bulk of the *Vega Expedition* ethnographic records came from the Chukchi people of Northeast Siberia, due to the ship's ten-month wintering near the Arctic shore of the Chukchi Peninsula from September 1878 to July 1879. Smaller contributions originated from short encounters with the Nenets and Khanty people of Northern Russia, the Inupiat at Port Clarence, and the Yupik on St. Lawrence Island, Alaska.

As the expedition's massive collections were brought to Sweden in April 1880, Nordenskiöld, the expedition leader and experienced polar scientist, acted swiftly to process its scholarly record and published it in a series of science articles, a two-volume account of the expedition soon translated in major European languages (Nordenskiöld 1881), and five volumes of 'proceedings.' He also used the collections from the expedition to publicize its results, secure additional funding, and seek favors from the Swedish Royal family and the general public in support of further explorations. In the following years, the objects collected by the *Vega* crew were publicly displayed, often without cataloging, divided according to professional categories of the era, deposited in different museums, exchanged with foreign institutions, given as gifts, and even partly held as personal or family possessions by expedition participants.

In 2019, the two authors—both Arctic/North American ethnology curators at their respective national museums, NMNH, and the Swedish National Museums of World Cultures/Statens museer för världskultur—agreed to revisit the *Vega* Chukchi collection and to research its history since 1880. This is how our project called "Dispersal and Reunion," was born. Its main goal is to explore a peculiar trajectory of the collection over 140 years and the shifting knowledge about its dispersed constituent specimens after they were taken out of the original cultural context and began new lives as museum objects. As revealed by our effort, the restoration of



Vega collections in 1880 display in the Royal Palace in Stockholm, 1880

at least some knowledge associated with the *Vega* collection is still possible via physical (or virtual) reunion of the original stock of objects assembled in 1878–1879; an input by Indigenous knowledge holders from the objects' home area ('cultural reunion'); and comparison of the *Vega* collection with other holdings of Chukchi cultural objects preserved in various museums.

Dispersal, 1880–2010

Upon the return of the *Vega* expedition to Stockholm in April 1880, the main portion of its ethnographic collection from Siberia and Alaska was officially donated by Nordenskiöld to the Swedish National Museum of Natural History (Naturhistoriska Riksmuseet). It was part of a much larger collection that also included thousands of natural history specimens—bird skins and eggs, plants, rocks and fossils, fish and invertebrates. It is an open question whether all of the expedition collections went directly to the Riksmuseet, for soon after, almost 300 objects, including 79 ethnographic specimens from the Chukchi and Alaskan Inupiat, appeared as part of 'Mr. Oscar Dickson's Swedish Collection' displayed at the International Fisheries Exhibition in Edinburgh in 1882. **Oscar Dickson** (1823–1897), a rich Swedish industrialist and banker, financially supported many of Nordenskiöld's enterprises, including the *Vega* voyage. Though Nordenskiöld aspired to take full control of all collections from the expedition, we could not exclude that its participants were disposing (selling, donating?) their personal small holdings as they wished. Some objects almost certainly ended as gifts to the members of the extended Nordenskiöld family or were given to sponsors.

The objects brought by the expedition were soon displayed in a massive exhibit staged in July 1880 at the Royal Palace in Stockholm. Scores of historical

photographs from that exhibit feature arrangements of mannequins dressed in Chukchi and Inupiat clothing placed against large wall displays of harpoons, lances, bows and arrows, paddles, fishing gear, and numerous other pieces interspersed with the natural history specimens, such as marine mammal skeletons, stuffed birds, rocks, fish in jars, and others. Following that first exhibit, most of the remaining uncatalogued objects ended up at the Riksmuseet where they were soon separated by 'fields' or 'themes,' so that the bird skin and egg specimens went to the 'Bird' division, rocks to 'Minerals,' fishes to 'Fishes,' and the likes. The ethnographic portion of the collection was assigned to the Department of Vertebrates (!) with one curator on staff. That curator quickly hired a young female registrar named **Kornelia Pålman** (1850–1886) to process the objects, assign catalog numbers, and provide short descriptions for the museum ledger book. These descriptions were rudimentary, but some place names of the Chukchi sites visited, like Pitlekaj, Jinretlen, and Irkajpij, made their way into at least some catalog entries.

Some objects were given more attention than others, like small ivory carvings (Swedish *snideri*) that often had details on size, form, and ornamentation. On the other hand, hunting and fishing gear were recorded very briefly. Some objects referenced as 'grave finds' (*Graffynd*) were cataloged as archaeological specimens from the ancient site at Ryrkaipyi (Irkajpij) that was explored in September 1878 and entered museum records as a separate collection.

In the absence of a full roster of the expedition ethnological and archaeological objects that arrived in Stockholm in 1880, it is hard to follow the fate of the estimated 1,000 objects from the Chukchi Peninsula, then the world's largest collection of its kind and still



A page from the original collection ledger of the Swedish National Museum featuring Chukchi objects from the *Vega* Expedition. Photo by Igor Krupnik



Small Chukchi ivory carvings (*snideri*) constitute almost 50% of today's *Vega* collection at the *Etnografiska Museet*. Photo by Igor Krupnik



Vega expedition objects in the NMNH-Smithsonian ethnographic collection with the preserved tag from the Swedish National Museum. Photo by Igor Krupnik



Chukchi photographic portraits taken by Capt. Palander, winter 1878/1879. Photo by Igor Krupnik



Chukchi objects from the Vega Expedition on display today. Photo by Igor Krupnik

one of the largest Chukchi collections outside of Russia. In 1892, a portion of the *Vega* collection was displayed in Madrid at the “Historical American Exposition,” honoring the 400th anniversary of Columbus’ first voyage to America. Even before that, a small set of 11 objects was exchanged with the U.S. National Museum in Washington D.C., some still retaining their original Swedish tags, with local place-names (e.g. ‘Kap Nord,’ ‘Jirkajpij,’ ‘Pitlakaj,’ etc.) and numbers from the ‘Royal Museum, Sweden.’ Following the era’s common practice of museum exchanges, similar sets of objects from *Vega* might have been given to other institutions, like the Världskulturmuseet in Gothenburg, formerly the Ethnographic Museum of the city of Gothenburg, where a small collection from Japan gathered on the *Vega*’s return voyage to Sweden ended up.

In 1900, when the special Ethnographic Museum (Etnografiska Museet) was established in Stockholm, most of the *Vega* ethnographic collections were transferred to the new museum, while a yet-unknown portion was left behind, mostly objects associated with bird hunting, fishing, and plant collecting. Until the 1950s, the Etnografiska Museet used the former catalog numbers assigned by the Naturhistoriska Riksmuseet. When the ethnographic museum staff finally assigned its own numbers, many objects were already listed as ‘lost’ or ‘misplaced.’ In any case, the original National Museum ledger listed 804 objects under ‘Tschukscher’ (Chukchi), not counting archaeological specimens, whereas the Ethnographic Museum database (in electronic format since 1999 and available online since 2001) lists only 660 objects. In addition, some 130 archaeological objects from house and grave excavations at Ryrkaipyi (Jirkajpij) are documented in a separate hand-written catalog produced in 1952.

Two other types of objects belonged to the original *Vega* holdings—over 25–30 drawings made by Chukchi visitors to the expedition wintering site that was used as illustrations in various publications and over 70 photographs from the voyage, including 34 portrait images of the local Chukchi people and six photos of the Inupiat from Port Clarence, Alaska, reportedly taken by *Vega* captain, **Louis Polander** (1842–1920). Some of the photos are now displayed in the halls of the Etnografiska Museet, but the original glass plate negatives are at the Royal Swedish Academy of Letters, History, and Antiquities in Stockholm.

Besides being scattered among various Swedish institutions, the *Vega* Chukchi objects are also ‘internally dispersed’ within the Etnografiska Museet. Others are kept in storage, like the iconic Chukchi kayak with its square cockpit and preserved skin cover, in various sections of the museum storage, intermixed

with pieces from other world cultures. There is no ‘Arctic’ storage area, no ‘Chukchi’ or ‘Vega’ space to easily locate the objects from the expedition, although they can now be tracked via database catalog numbers and electronic storage locators. It is a helpful advancement compared to the earlier work by anthropologist **James VanStone** on the Inupiat portion of the *Vega* collection in the 1980s when about 10% of the objects listed in the catalog could not be retrieved and were presumed “lost.”

The Beginning of ‘Reunion’

When the authors considered their joint “Chukchi *Vega* Collection” study in summer 2019, we originally aimed to follow in the footsteps of VanStone’s survey of the much smaller Alaskan portion of the same collection conducted almost 30 years before (VanStone 1990). Yet as we met at the Etnografiska Museet in Stockholm in September 2019, we quickly realized that we had to do more than just replicate VanStone’s strategy for the Chukchi portion of the collection. VanStone was focused exclusively on examining and describing the objects; he had little interest in the history of the collection *after* it was assembled by Nordenskiöld in 1879 and in ‘reconnecting’ it to today’s residents of its home area. There was also no effort to reunite the collection in its original form as we were willing to entertain.

Our process started with the mundane re-assembling of the objects in one physical space so that we could cross-check the items ‘in storage’ and exhibit displays against today’s electronic database. It became clear from this first examination (continued by MS in late 2019 and January 2020) that the museum database constitutes the best starting source to assess the composition of today’s collection. On the flip side,

the ledger records from the 1880s and, particularly, the historical photographs from the first exhibit in 1880 revealed a much larger set of objects that had to be virtually construed. There is an urgent need to produce high-quality visual documentation of the collection so that the objects can be studied without physical examination, also for prospective sharing with Indigenous knowledge holders. Such extended digital documentation had been initiated by the museum staff following our meeting in 2019.

During our work in Stockholm, we also contacted **Eduard Zdor**, a Chukchi cultural and environmental activist from Chukotka, now a Ph.D. student at the University of Alaska, Fairbanks. Zdor grew up in the community of Neshkan, barely 30 km (18 mi) east of the *Vega* wintering place in 1878–1879. According to Zdor, the town of Neshkan (population 700, in Nordenskiöld Swedish transliteration, Najtskaj) is home to most of the descendants of the former residents of small camps around the old wintering site. These people constitute a direct ‘descendant community’ connected to the objects, historical photographs, and ethnographic descriptions generated by the expedition. Local people never had access to any records—written, photographic, or electronic—relating to the expedition collections from their home area. Though the name “*Vega*” is familiar in Chukotka and various recent reprints of the Russian translation of Nordenskiöld’s account of the *Vega* voyage are available, also as online resources, few people could relate to a 140-year old description of their ancestors’ life. Overall, we hope that the local Chukchi community in Neshkan and, perhaps, other Indigenous experts in Chukotka, would assist us in an effort to re-connect the descendants of those who had interacted with the *Vega* crew with the 140-year old record related to their homeland and culture.



Chukchi kayak (middle) collected by the Vega expedition illustrating its peculiar square open cockpit with no raised rim, a structure seen also in a Vega Chukchi model kayak. The collection also includes a small Chukchi open boat model.

Photos by Igor Krupnik

What's Next?

As our project unfolds, we see more and more tasks on the path to 'reunite' the elements of the *Vega* Chukchi collection—objects, photographs, drawings, written and published records—with diverse audiences and in several languages. We would like to engage a team of Chukchi cultural experts, preferably from the community of Neshkan, to have Chukchi names and cultural explanations for various objects from the *Vega* expedition added to the museum database and to the future educational and public materials to emerge from our project. We hope to share these materials—visually, electronically, as printed catalog, etc.—with the home community and with the larger audience in Chukotka that so far has little knowledge of the *Vega* collection.

Another urgent task is to complete the existing electronic database for the Chukchi objects at the Etnografiska Museet and then add other types of cultural sources, such as photographs and glass plates, pencil drawings, archival documents stored at various Swedish institutions. This task has been already partly accomplished as the *Vega* Chukchi database has grown to almost 1080 objects—by adding several formerly 'unassociated' objects recovered in the museum storage, as well as archaeological specimens from the old site of Ryrkaipyi ('Jirkajpij' in Nordenskiöld transliteration) that have been cataloged separately. Another virtual 'reunification' would involve an assessment of the objects featured on the photographs from the 1880 exhibit at the Royal Palace against today's holdings. These early photos reveal more objects yet to be accounted for and may illustrate the rate of dispersal of the original collection between 1880 and its transfer to the museum in 1900.

Another prospective source of expertise is the community of Arctic museum specialists, particularly from the institutions that house substantial Chukchi ethnographic collections. As the expanded *Vega* database becomes accessible in 2020, we aspire to engage our international colleagues at various museums that are home to other major Chukchi collections, such as the Peter the Great Museum of Anthropology and Ethnography in St. Petersburg, the Russian Ethnographic Museum in St. Petersburg, the National Museum of Ethnology in Leiden, the American Museum of Natural History in New York, and the local museums in the Chukchi people homeland in Northeast Siberia. Their insight would be crucial to our understanding of the meaning of objects collected by the *Vega* crew. The 'reunion' will eventually have many aspects, including reconnecting the collection to its original 'home' community, as well as securing its full recognition among the world's ethnographic holdings on Arctic Indigenous peoples.

INUVIALUIT DELEGATION VISITS SMITHSONIAN COLLECTIONS

By Bernadette Driscoll Engelstad

In November 2019, a delegation from the Inuvialuit Regional Corporation—**Jerry Inglangasuk** (IRC Vice-Chair), **Ethel-Jean Gruben** (Manager, Inuvialuit Cultural Center), and **Beverly Amos** (Regional Language Consultant), an archaeologist, **Charles Arnold**—recorded Inuvialuit cultural belongings originally brought together by **Donald Cadzow** for the Museum of the American Indian (MAI) in 1919. Established by **George G. Heye** in New York in 1916, the MAI became part of the Smithsonian in 1989 and is now called the National Museum of the American Indian. Highlights from this collection are currently on view in a major exhibition at the NMAI George G. Heye Cultural Center in New York City, *Infinity of Nations: Art and History in the Collections of the National Museum of the American Indian*.

With the assistance of **Maria Martinez**, Collections Manager, the research team documented fur clothing, hunting tools, and domestic material used in the Mackenzie Delta region a century ago. In addition, the



Inuvialuit parka with Inuinait stylistic features collected by Captain E. Herendeen (NMNH E128407).

Photo by Bernadette Engelstad

team reviewed the NMNH's 19th century Inuvialuit collection acquired by Roderick MacFarlane in the 1860s as well as Inupiat ancestral belongings collected by Lt. **Patrick H. Ray** and Captain **Edward P. Herendeen** in the 1880s in the Utqiagvik region near Point Barrow housed at the Museum Support Center. This research complements the extensive study of the MacFarlane collection, a collaborative project carried out by the Inuvialuit Cultural Resource Center that resulted in the digital production and northern curriculum program, *Inuvialuit Pitqusit Inuuniarutait: Inuvialuit Living History* (<http://www.inuvialuitlivinghistory.ca/>).

Of special interest to the group was the curiously designed parka collected by Capt. Herendeen at Herschel Island in May 1887, which overlays design features of the Inuinnait parka—including white caribou fur chest panels, an elongated tail, and a cone-like appendage on the hood, apparently mimicking the loon beak typically attached to the Inuinnait dance hat. These features appear to serve as a comic device, suggesting that the parka was used as a costume in Inuvialuit festivities, parodying the parka style of the Inuinnait, neighbors to the east. Borrowing design features of neighboring groups is also apparent in the clothing tradition of Inuit shamans.

As Charles Arnold points out, **Guninana** (a member of Stefansson's expedition) recalls hearing of a Baillie Island man (long-passed) who “wore a ‘swallow-tail’ coat in imitation of his spirit, an *agoyalik* (having a tail), as such a tailcoat was called. These clothes were immediately taken off and put away at the end of a

seance as soon as the *keyugak* (familiar spirit) had left” (*Anthropological Papers of the American Museum of Natural History*, vol. 14, 1914: 366; Diary, March 13, 1912).

The comparison of the late 19th and early 20th century Inuvialuit women's parkas illustrates the transformational change in women's clothing design throughout the region, indicating that the Mackenzie Delta served as a core center for dynamic design change well before the introduction of European materials.

Inuvialuit/Inupiat women's parkas illustrate stylistic changes in 19th and early 20th-century clothing design: left, an Inuvialuit woman's parka, Anderson River, Mackenzie Delta, Canada, collected by **R. MacFarlane**, acc. December 21, 1866, NMNH E-1701, and right, an Inupiat woman's parka, recently offered for donation by **Eliot Waldman** of Native Art Traders, Skokie, Illinois (deaccessioned from Rutgers University). These pieces provide yet another link in the transformational change in Inuvialuit and Inupiat women's fur clothing across space and time.

During a visit to the National Anthropological Archives at MSC, the research team reviewed a population census and extensive vocabulary lists compiled by Lt. Ray and Captain Herendeen. These linguistic surveys, widely circulated by **John Wesley Powell**, founding Director of the Bureau of Ethnology (later BAE), contained a plea for local assistance in recording the vocabulary and grammar of indigenous peoples across the Americas. The preservation and contemporary use of these materials underscore their intrinsic value to indigenous communities today.



Women's parkas (l-r) collected by R. MacFarlane (Anderson River, c.1866); D. Cadzow (Mackenzie River Delta, 1919); E. Waldman/Rutgers University (unprovenanced). Photo by Bernadette Engelstad

 OUTREACH

GATEWAYS EXHIBIT AT THE WHITELEY MUSEUM, QUEBEC

By Chelsi Slotten and William W. Fitzhugh

Last winter and spring, with financial support from the Whiteley Museum in St. Paul, Quebec, we prepared a poster exhibit presenting the cultures of the Lower North Shore (LNS) featuring results of recent Smithsonian archaeological studies. The goal of the poster exhibition was to acquaint local people, and visitors with the coast's cultural heritage and the role archaeology can play in its future social and economic development. The exhibition was installed in July and was introduced to the community at the gathering in August when we reported on the results of our 2019 field season. Excerpts of the text, which we produced in English and French, were accompanied by maps, sites, and selected artifacts.

FASHION WORKSHOP IN ANCHORAGE

By Elisa Palomino

The Fashion Workshop at the ASC Anchorage Museum on 17–18 July 2019, was part of my Fulbright UK-US scholar's award to develop a research and educational project on indigenous Arctic fish skin clothing. The project explored cultural and ecological impacts on fashion, higher education, and the learning strategies for best promoting these skills. CIRI Foundation provided food and art materials for the participants, and the Arctic Studies Center provided matching funds from the First National Bank of Alaska to bring artist Coral Chernoff

from Kodiak to attend the workshop. I am the Fashion Print pathway leader at Central Saint Martin's University of the Arts in London and an experienced educator with visiting academic appointments at several international universities, museums, and galleries.

Five Alaska Native artists took part in the workshop as well as two members of the staff from the Anchorage Museum. During the two-day fashion sketchbook workshop, students were taken through the process of collecting personal research from diverse and inspiring sources. They documented their responses through drawing, photography, and collage in order to create a unique sketchbook to help them with their personal creative practice. The workshop took place adjacent to the Arctic Studies Center exhibit *Living our Cultures, Sharing our Heritage: The First Peoples of Alaska*. Students had the unique chance to use imagery from the Smithsonian collections as part of their content research for their sketchbook, encouraging them to do further research on their own Alaskan Native culture.

Students were introduced to a selection of books from the Anchorage Museum library, which focuses on the history, ethnography, science, and art of Alaska and the North. The workshop provided on-site research access to Smithsonian collections of Alaskan art and provided methods to improve engagement and consultation with Art libraries.

The workshop began with an introduction to my current Ph.D. research on intangible cultural heritage preservation connected with fish skin. I shared with the students the fish skin knowledge I have



*Workshop activities at the Anchorage Museum.
Photo by Elisa Palomino*



Coral Chernoff, Elisa Palomino, and Danielle Larsen with sketchbook postings. Photo by Elisa Palomino

gathered in workshops with native artists across the circumpolar area, and my own printing techniques. Finding ways to stimulate Arctic artists to explore new ways to utilize traditional fish skin knowledge is of high importance today. The workshops have been envisioned as the beginning of a continuing and expanding discourse allowing for conversations on the future of fish skin crafts. Collaboration with indigenous partners has enriched understanding of this material, and the experiences gained continue to guide and inform methods and attitudes in my work with native communities. Most of the participants in the workshop used fish skin already and were glad to learn new techniques for tanning, dyeing, and printing to incorporate them into their own practice.

There was a second aspect to my fieldwork in Alaskan museums, where I immersed myself for three months studying circumpolar collections and the origins and traditions of using Arctic raw materials for fashion design. I shared my findings on sustainable use of local subsistence by-product materials, such as fish skin, gut skin, sealskin, baleen, bird skin, bird feet, porcupine and bird quill, grass, wood, and birch bark. Even though the participants were familiar with these materials, they had never seen most of the objects used in the presentation. The participants were inspired and expressed a desire to use their own self-harvested and processed indigenous materials with similar techniques.

Then I presented fashion sketchbooks from all the different international universities where I have worked and shared where to look for research information, content needed for fashion sketchbooks, and for layout and presentation techniques.



*Danielle Larsen's Alaskan packaging inspired sketchbook.
Photo by Elisa Palomino*

Participants introduced themselves and their own practices and started working in groups. Most of the participants have other jobs on top of their creative practice. They shared issues and concerns of working in isolation, creating their work in their studios or homes with little or no contact with other creative fellows. They were happy to reconnect with each other in the common space of the Anchorage Museum and wondered about having a similar workshop during the winter.

Coral Chernoff looked at the gut skin parkas from St. Lawrence Island on display at the museum and developed some new ideas for future gut skin artifacts by combining them with Arctic flora. She found the workshop of great inspiration for her own teaching and will be delivering a similar workshop in Kodiak this winter. **Danielle Larsen** dived into the Anchorage Museum 50's Alaskan packaging as part of her on-going pop art inspiration, creating some interesting fashion shapes. She expressed her enthusiasm for being back "at school" even if just for a couple of days.

Carla Kelliher Gingrich developed some new digital print ideas inspired by one of the library's northern lights books for her own collection of native *kuspuks*. **Erin Gingrich** looked at the museum's Yup'ik hunters' wooden visors to create a small collection of fashion and millinery pieces inspired by her native Yukon River wildlife habitat. June Pardue could not attend but met with me beforehand and started experimenting with beet juice to naturally dye her fish skin.

Our workshop would never have taken place without the assistance of **Aron Crowell** and **Dawn Biddison** in the ASC Anchorage office.



Coral Chernoff's St. Lawrence Island gut skin parkas and Arctic flora-inspired sketchbook. Photo by Elisa Palomino

NARWHAL EXHIBIT CLOSES AT NMNH AND BEGINS S.I.T.E.S. TOUR

By William W. Fitzhugh

The *Narwhal* exhibition closed at the Natural History Museum on 3 January 2020, having had a 2.5-year run that brought this majestic creature and other Arctic themes to thousands of visitors. I dropped in on Sunday, 2 January, to say goodbye and found the hall jammed with visitors, none of whom realized what they almost missed. It is always gratifying to get their reactions. What I learned this time was that everyone—young, old, and everyone in between—found something engaging. Thank goodness we had a touchable tusk and pop art for the kids. We had two docents working the cart, and there were throngs about them continuously. One visitor, an Inuit man from the Western Canadian Arctic, told me he once killed a narwhal that had a narwhal tusk tip embedded in it—the first I’ve heard of such an instance.

When I visited the hall the next day, the exhibits team had already taken the photos and panels down. What a scene! Order, art, and intelligence had become a cluttered shambles sad to see! I recovered whatever I could salvage for future use as props and momentos. The ethnographic items are headed back into collection storage; the Greenland sealskin hunting parka collected in the 1880s had its once-in-a-lifetime exhibition debut and probably will never be seen again by the public.

This fall, our Education Department put on a ‘Narwhal Weekend’ featuring a lecture by Dr. **Martin Nweeia** and a family day in our *Q?rius* center, where kids explored narwhals and Inuit stories in a makeshift convertible igloo hosted by **Pamela Peeters**. One of the highlights of the program was a chance to dive into the narwhal world with a virtual Hollow-

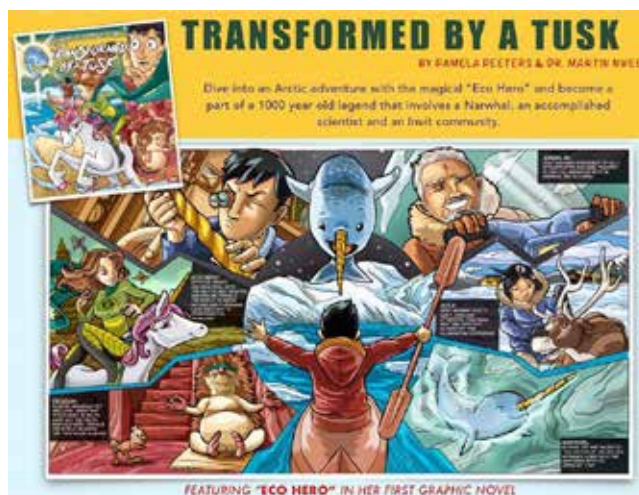
lens experience presented by Case Western Reserve University staff, donning fancy headgear that turned you into a narwhal foraging in the Arctic seas with narration by **Meryl Streep!** Thank you, Martin, for arranging that!

Nevertheless, my nostalgia (was this my last major Smithsonian exhibit?) was assuaged by the knowledge that the exhibit is being redesigned by Smithsonian Institution Traveling Exhibit Service (SITES), thanks to **Carol Bossert**, for travel to smaller museums in Canada and the US over the next two or three years. Perhaps I will have a chance to visit it on the road somewhere and re-connect with its themes of narwhal biology, the marvelous tusk, its medieval Inuit and European history, and its stories of Inuit knowledge. Then, alongside our exhibition catalog, we may see the new graphic novel publication, *Transformed by a Tusk* (2020), produced by Pamela Peeters and Martin Nweeia, and, through its delightful artistry and text, voyage to the Arctic to meet Dr. Narwhal and Ms. Eco-Hero, who together save the world from climate change.

Bon Voyage, Narwhal!



Fitzhugh and Narwhal docents Sally Lau and John Kelmelis on the last day of the exhibit. Photo by Sally Lau



Graphic novel Transformed by a Tusk, by Pamela Peeters and Martin Nweeia

THE AMAZING AND MAGICAL NARWHAL

By Sara Acuff

[Editor's note: Ms. Sara Acuff is a retired teacher and school principal who brought her daughter and a friend to the Narwhal exhibit on the last day it was open.]

In January of this year, my family and I, along with a friend of our daughter's, visited the Smithsonian's Natural History Museum in Washington, D.C. Since we live nearby, we often visit, as our daughter **Skyler Acuff** likes to see the ocean animals, which she has been especially interested in since she was two years old. Sharks and whales are her favorites, and she and her friend did a science fair project on sharks last year. Skyler, age 10, and **Daniela Ludena**, age 9, were excited to see the exhibit. They stayed there the longest time talking to the very knowledgeable docent, Sally Lau, who showed them a rare double-tusked male skull on display. They heard that a tusk, or tooth, can grow up to 9 feet long and that narwhals can weigh almost 2 tons. We also learned that they live in the cold waters of the Arctic and have to come up to breathe air. Blubber helps keep their bodies from freezing. They migrate during the summer and winter, returning to the same grounds.



Skyler Acuff and Daniela Ludena visiting the Narwhal exhibit. Photo by Sally Lau

Skyler said, "I got to compare myself to a narwhal, which is a mammal, and learned they rarely have 2 tusks. All males have them and some females. Groups of them are called pods. I hope other kids can see this exhibit because narwhals are definitely magical creatures that they can learn about!" Daniela added some of the same comments, saying, "I got to see a life-size model of a narwhal, its tusk, hear its clicks and whistles. Kids can learn many things about the narwhal, the sea unicorn."

We learned about a new discovery that the narwhal's tusk can trace changes in their icy waters, such as temperature, pressure, and saltiness and about the Inuit people of Pond Inlet in northern Canada who have lived with them for thousands of years, and about their stories, traditional knowledge, legends, and the effects of global climate changes in the Arctic.

INTERNS AND FELLOWS

ANOTHER DICKENSONIAN ARRIVES AT THE SMITHSONIAN

By Calvin Bader

Growing up just outside D.C., the Natural History Museum was always my favorite place to go. Forget the other museums, I wanted to see the dinosaurs and the big whale. I am so honored to be able to say that I worked at the NMNH, even if only for a month in



Calvin Bader. Photo by Nancy Shorey

July 2019. When I met Dr. **William Fitzhugh** after his lecture series at my school, Dickenson College, I really didn't know what I was going to do with myself during the summer. Instead, he offered me an opportunity I will not soon forget. My time at the museum was incredibly rewarding and interesting. Every person I met was passionate and knowledgeable, and their energy gave me a stronger drive to pursue a career in science and research. The internship gave me the opportunity to learn about northern regions and anthropology I had almost no

knowledge about. I had no idea the Arctic was such an interesting and fruitful area for archaeological and environmental study. My work cataloging Labrador archaeological artifacts gave me the opportunity to learn more about the Arctic area by interacting with the very artifacts I was reading about. I now have a much deeper understanding of Arctic archaeology and hopefully will get a chance in the future to learn more about this amazing cultural area. I am deeply grateful for **Nancy Shorey** and Dr. Fitzhugh for inviting me to the ASC and inspiring me to consider a future museum or teaching job research in northern studies.

*[Editor's note: Dickenson College in Carlisle, Pa., founded in 1783, was where **Spencer Fullerton Baird** began his academic training in 1837 and was teaching biology there when he was invited by Secretary **Joseph Henry** to take up the Assistant Secretary position at the Smithsonian, reputedly arriving in Washington with two railway boxcars full of zoological specimens.]*

FISHSKINLAB GREETINGS

By Elisa Palomino

The year 2019 has been an important period for the Indigenous Arctic Fish Skin Project. As the year comes to closure, I would like to thank all the individuals that have helped me to carry out this research. The experimental research activities have been extremely rewarding, not only because they have allowed me and my students to learn so many new things about fish skin, but also because the experimental work has involved strong collaboration with a wide spectrum of experts, from traditional tanners, artists, museum curators, anthropologists, and historians.

I have co-created four fish skin craft workshops with native and non-native Arctic craftspeople in four different locations: Iceland, Hokkaido Island (Japan), Northeast China, and New York. I would like to thank the fish skin artists delivering the workshops: **Lotta Rahme, Joe Boon, Shigero Takano, Wen Feng Yu, Li Yu, Joel Isaak**, all the student participants in the workshops, the museum curators, the photographers, and the video recorders. My sincere gratitude to the universities involved in the workshops: Central Saint Martins College of Art & Design, Iceland University of the Arts, The Swedish School of Textiles—University of Borås, Aalto University, KADK The Royal Danish Academy of Fine Arts, Bunka Gakuen University, Osaka Bunka, Kyoto Seika University, Parsons School of Design. In addition to the workshops, I have been privileged to write a book chapter and delivered nine conferences in the UK, the Netherlands, Japan, Canada, Alaska, Iceland, and Estonia. All these experiences, including successes and failures, have provided valuable learning experiences.

I would like to express my gratitude to the Icelandic tannery Atlantic Leather, Icelandic Textile centre, Textile Museum, Blondous, Musée du Quai Branly, NY American Museum of Natural History, Anchorage Museum, Wells Fargo Museum, Alaska State Museum, Sheldon Jackson Museum, Carrie M. MacLaine Memorial Museum, Pratt Museum, Alutiiq Museum, University of Alaska Museum of the North, Hokkaido University Museum, Ainu Culture Research Centre of Hokkaido Museum, Ainu Museum, Kushiro City Museum, Abashiri Hokkaido Museum of Northern Peoples, Nibutani Ainu Culture Museum, National Museum of Ethnology in Osaka, Minpaku, and Hezhen Ethnic Minority Culture Museum.

The research has been funded by the AHRC LDoc London Doctoral Design Centre Award. In addition, this research could not have been completed without support from the Fulbright UK-US Scholar Award. My deep gratitude goes to **William Fitzhugh**, director of the Arctic Studies Center at the National Museum of Natural History, Smithsonian Institution, and his team: **Aron Crowell, Dawn Biddison, Stephen Loring, Nancy Shorey, and John Cloud**. Further funding includes the Nordic Culture Fund, OPSTART, Handmade Nordic culture fund, the Society of Dyers and Colourists, Foundation for Research and Promotion of Ainu Culture, The Japan Foundation Endowment Committee, the Great Britain Sasakawa Foundation, the Daiwa Foundation. EU Horizon 2020-MSCA-RISE-2018. Research and Innovation Staff Exchange and Marie Skłodowska Curie.

My sincere gratitude to **Sandy Black, Dilys Williams, and Simon Thorogood** from the Centre for Sustainable Fashion at London College of Fashion who keep providing overall guidance for this research. My immense gratitude to **Isaac Rayne**, always available, giving me feedback and constant support.



Dyeing fish skin in an indigo vat. Photo by Elisa Palomino



Katabozome indigo-dyed fish skin. Photo by Elisa Palomino

BOOK REVIEWS

PEARY'S ARCTIC QUEST: UNTOLD STORIES FROM ROBERT E. PEARY'S NORTH POLE EXPEDITIONS, by Susan A. Kaplan and Genevieve M. Lemoine

DownEast Books, 2019. Published in cooperation with the Peary-MacMillan Arctic Museum, Bowdoin College.

Reviewed by William W. Fitzhugh

In the preface, the authors ask the question, “Does the world need another book about **Robert E. Peary** and the North Pole?” Their answer: a ‘qualified yes,’ recognizing that readers may be tired of the back-and-forth about whether Peary actually reached the Pole on April 6, 1909. Instead, they take a different course—presenting a full, dispassionate study of Peary’s life and accomplishments on the 100th anniversary of his final expedition. They consider but do not advocate for his claim. More importantly, they argue, is what he accomplished along the way—an inventor of arctic expedition gear, a master expedition organizer and planner, and an exceptional leader and communicator. He dealt fairly with the Inughuit and his team members, promoted Matthew Henson, a black man, as his field partner, and earned the undying praise from his equally famous ship captain, Robert Bartlett, a Newfoundlander.

The book begins with a brief biography of Peary’s life. He was born in Cresson, Pennsylvania, and moved to Maine after his father died, exploring nature and becoming an accomplished taxidermist. Graduating from Bowdoin College as a civil engineer, he took up work as a draftsman in the Coast and Geodetic Survey in Washington, D.C., and soon after as a U.S. Navy engineer. In Washington, he met **Matthew Henson**, who accompanied him on as his valet while surveying a Nicaragua Canal route. He caught North Pole ‘fever’ in the 1880s from reading books by polar explorers and settled on the Pole as his life quest, which he pursued doggedly during many expeditions, leading up to 1909.

Subsequent chapters document his several

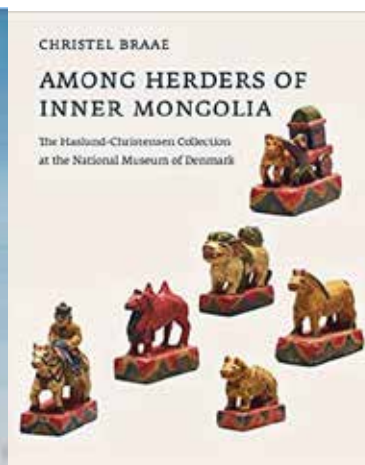
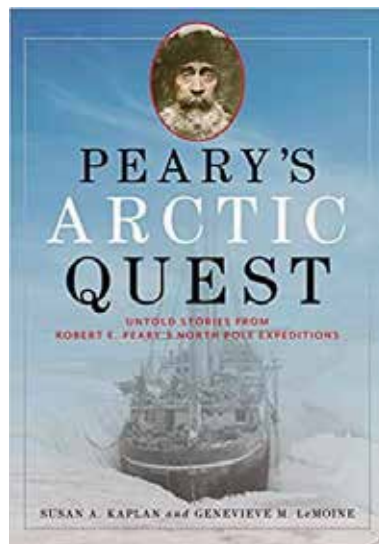
expeditions, his partnership with the Newfoundland ace ice-skipper, **Robert Bartlett**, his careful planning and equipment improvements, his growing reliance on Inuit team members, and the geographical accomplishments. One of his team members, **Donald MacMillan**, also a Bowdoin graduate, later became an equally renowned explorer. Kaplan and LeMoine pay close attention to Matthew Henson, who, like Bartlett, became an expert dog-driver and was with Peary a small group of Inuit on the final dash to the pole. A final chapter deals with the events of the 1909 trip and the controversies regarding **Frederick Cook** and Peary’s ambiguous geographic documentation.

In the end, we learn much about Peary that redeems him from the unfavorable representations of recent review literature—about his high-brow attitude, his failure to acknowledge adequately Henson and Bartlett, who remained loyal to Peary to the end of their days. Susan Kaplan and Genevieve LeMoine have produced an account that rescues Peary from the bickering of armchair explorers; here, we have a balanced view of a man who made notable contributions even if he may not have quite reached the Pole. The book contains excellent photographs and maps, an extensive bibliography, and sidebar stories on many fascinating topics—all made possible by Bowdoin’s careful curation of the Peary records and collections. It turns out we did need another book on Robert E. Peary.

AMONG HERDERS OF INNER MONGOLIA: THE HASLUND-CHRISTENSEN COLLECTION AT THE NATIONAL MUSEUM OF DENMARK, by Christel Braae

Aarhus University Press, 2017

Reviewed by William W. Fitzhugh



Recently, a monumental 6.3-pound volume appeared on our new acquisitions shelf at the Natural History Museum Library. This 613-page tome describes ca. 800 items from a collection of some 3000 artifacts gathered on expeditions to Inner Mongolia led by the Danish explorer-anthropologist **Henning Haslund-**

Christensen in the 1930s, housed at the Danish National Museum. The flap copy describes the work as “documenting the daily life of pastoral society in and around the tent, in the herding of the animals, in caravan trade, and in hunting, crafts, sports, and games, and in ritual life...the book is also a detailed account of the expeditions including their routes, means, and measures, as well as the worries and hopes of the participants, their struggles with scientific aspirations, and the conditions for collecting against the backdrop of the Chinese civil war and the Japanese occupation.”

The book is one of several volumes to appear from the Carlsberg Foundation’s Nomad Research Project that began in the 1980s and included ethnographic and geographical studies of the nomadic societies stretching from northern Africa through Central Asia to the Pacific coast. The current volume dedicated to the life and culture of Inner Mongolians is an amazing piece of scholarship describing and cataloging the material and social life of a people whose lives under Chinese Communist rule has changed drastically, far more than their “Outer” Mongolia relatives, many of whom still carry on traditional nomadic life. The book is a welcome addition to historical ethnography.

More than just a finely illustrated catalog, the editor’s preface by **Ida Nicolaisen** and a foreword by **Braae** set the collection in context with past and current anthropological theory and describe field researchers’ goals and the process of collecting and fieldwork. Early chapters describe the explorers and their expeditions, followed by essays illustrated by field photos and objects that provide their geographical and social settings. Extensive captions and object descriptions are presented for camps and dwellings, food and drink, domestic animals, crafts, hunting, “manly” sports, games and toys, healing and medicine, personal possessions, and caravan accounts and equipment. There are also detailed indexes.

Among Herders is not only a valuable addition to the ethnography and material culture of 1930s Inner Mongolia. It appears at a time when new historical and archaeological research on pastoral cultures demonstrates the pivotal role these formerly ‘invisible’ nomadic peoples and cultures played in human history, not only during the Silk Road, Turkic, and Mongol periods but throughout arid lands up to the present. The book brings this story forward by including recent events and history, like nomadic resistance to oppression and how modern technologies of cellphones and transport have been beneficial but also brought negative developments like insurgencies, smuggling, and human trafficking into the lands of modern-day nomads.

THE NANAY: A COLLECTION CATALOG (NANAITSY: KATALOG KOLLEKTSII IZ SOBRANIIA KHABAROVSKOGO KRAEVOGO MUAZEIA), compiled by Galina T. Titoreva, Victoria B. Malakshanova, Ksenia E. Peresyphina

Krasnoyarsk: Yenisey Publishers, 2019, 556 pp.

Reviewed by Igor Krupnik

This beautiful 556-page catalog published by the Grodekov Regional Museum in Khabarovsk, Russia, continues a new pattern of large, lavishly-illustrated museum catalogs covering individual Siberian indigenous peoples. The volume is no. 11 in the series of smaller similar catalogs on other ethnic collections of the Grodekov Museum—on the Negidal (Negidaltsy 2011), Ainu (Ainu 2013), Nivkh (Nivkhi 2015), Udege (Udegeitsy 2016), Ulch (Ul’chi 2017), and others, as well as the recent two-volume catalog of ethnographic collections on indigenous nations of the Republic of Sakha/Yakutia in American museums (Ivanova-Unarova 2017) and an earlier set of three volumes by the Kunstkamera/Peter the Great Museum in St. Petersburg on its historical collections from the Unangan/Aleut, Tlingit, and Yup’ik people of former ‘Russian America.’ The new catalog on the Nanay, a small indigenous nation of the Russian Far East totaling 12,000 people, is the largest in the Grodekov Museum series; it introduces the remarkable richness of their traditional culture and the nation’s artistic creativity preserved in just one ethnographic museum. Of course, the Grodekov collection is anything but ‘ordinary’ because it includes more than 2200 objects acquired since the late 1800s and more than 700 historical photographs.

The catalog compiled by Grodekov Museum curators and researchers, **Galina Titoreva, Victoria Malakshanova, and Ksenia Peresyphina** covers this rich trove in ten thematic sections—hunting and fishing tools (98 objects), transportation (31), objects of everyday life (289), decorated rugs and mats (55), clothing (288), beliefs/ritual objects (226), personal ornamentation (143), arts and crafts (150), toys (262), and musical instruments (24). Each object in the catalog is accompanied by a small color photo and a short caption with all the needed details, including the name of the artist/maker, dimensions, information on donor/collector, and any earlier exhibit display and publication history. Similar information is provided for hundreds of historical photos and negatives. Even more, the catalog features two useful appendices—a list of 90 Nanay artists and craftspeople who were active during the 20th century and a list of their works in the book. The density and the value of this information are amazing and on a par with the *Living Our Cultures*,

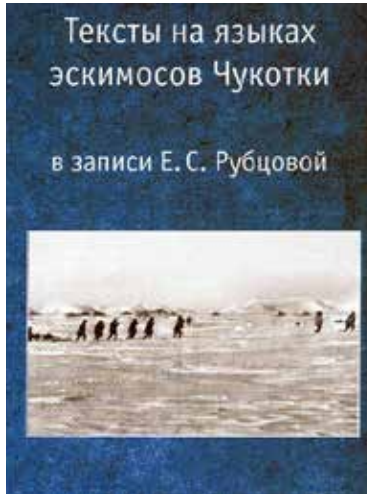
Sharing Our Heritage catalog (Crowell et al. 2010) produced for a major Smithsonian exhibit at the Anchorage Museum and its website.

We at the ASC have a special interest in the collections of the Grodekov Museum in Khabarovsk for two reasons. First, the NMNH ethnological collection contains some 110 objects from the Nanay and neighboring ethnic groups of the Russian Far East, the majority received as part of an exchange with the Grodekov Museum in 1919, via its then-director, **Vladimir K. Arsen'ev** (1872–1930) who is listed as the 'donor.' Some of these objects have been used in our exhibits, like the *Crossroads of Continents* in 1988–1992. Even more important was our partnership with the Grodekov Museum in the 1990s when it hosted the Russian portion of our traveling exhibit, *Crossroads Alaska. Native Cultures of Alaska and Siberia*. The small catalog of that exhibit (Chaussonnet 1995) introduced several objects from the Grodekov collection that are now featured in the new Nanay catalog. We salute our Russian colleagues for their valuable and insightful publication.



1932) as an elementary school teacher in small village schools in the communities of Imtuk and Sighinek (Sireniki). She returned to Chukotka at age 52, having been trained as a linguist and inspired by lectures by Prof. **Waldemar Bogoras**, who had studied Siberian Yupik during his Jesup North Pacific Expedition fieldwork in 1900–1901.

Altogether, Rubtsova recorded more than 100 stories and over 130 short songs, primarily in Chaplinski Yupik. The first portion of her stories was published in 1954 in a bilingual (Yupik-Russian) collection titled "Materials on Folklore and Language of the Eskimo" (Rubtsova 1954), but a much larger portion known as "Rubtsova's Volume 2" remained as an unpublished manuscript for the next 65 years. The very existence of this "second volume" was known to very few, including the late **Michael Krauss**, former Director of the Alaska Native Language Center, and a great admirer of Rubtsova's work. In the late 1970s, **Michael Chlenov** and I studied Rubtsova's texts and cited them in our book *Whale Alley* (Arutyunov, Krupnik, and Chlenov, 1982). Yet it took



TEXTS IN CHUKOTKAN ESKIMO LANGUAGES, AS RECORDED BY E.S. RUBTSOVA (TEKSTY NA IAZYKAKH ESKIMOSOV CHUKOTKI V ZAPISI E.S. RUBTSOVOI), edited by Nikolai Vakhtin

St. Petersburg: Art-Express. 2019, 868 pp.

Reviewed by Igor Krupnik

This newly published collection of traditional folklore texts recorded from the Siberian/Asian Yupik storytellers in Chukotka, Russia, had a remarkable history. It took 79(!) years, the span of a good human life, to convert a pile of original hand-written field notes into a hefty volume with a 1929 historical photograph on its cover. The original stories were recorded in Yupik by Russian linguist, **Ekaterina S. Rubtsova** (1888–1970), mainly during her fieldwork in Chukotka in 1940–1941 and on a few later occasions, up to 1948. By the time of her fieldwork, Rubtsova was a fluent Yupik speaker having spent three years (1929–

Krauss' persistence and a heroic multi-year effort by our Russian colleague, Prof. **Nikolai Vakhtin** of the European University in St. Petersburg, himself a Yupik linguist, to bring the rest of Rubtsova's folklore collection to its eventual publication as a contribution to the NSF-funded project *IPY: Documenting Alaskan and Neighboring Languages* (see <https://www.uaf.edu/dan/>).

It is hard to overestimate the value of the volume of 850+ pages that contains 62 texts and several dozen songs in Yupik, with Russian lineal translation. At the time of Rubtsova's recordings, all Yupik people in Chukotka were fully fluent in their mother tongue and used it as their prime means of communication, family education, and transmission of cultural heritage. Today, the language is gravely endangered with just a few dozen primarily elderly speakers. The lengthy traditional narratives in the 'high Yupik' language of the past are long gone; they have been replaced by much-simplified school textbooks, a reduced vocabulary of short village talks and camp interactions,

and a few songs accompanying Eskimo dance performances. Nonetheless, the longing for traditional Siberian Yupik heritage and cultural knowledge is very strong in Chukotka, even if few people today can read stories recorded by Rubtsova in the 1940s in their Yupik originals. Still, the volume offers a trove of information about traditional Yupik worldviews, historical geography, lifeways, spiritual beliefs, the richness of the Yupik language, and general breadth of oral tradition. This “window” into the past status of language and culture of a small Arctic Indigenous group is priceless and irreplaceable. Unfortunately, this precious book was printed in only 70 copies (!), with no English summary, Table of Contents, and exclusively in the Cyrillic-based Yupik orthography (with Russian translation). The next critical step is to make the book available online for a broader audience and also to convert perhaps a portion of Rubtsova’s text into the Roman-based Yupik orthography used by much larger Yupik community on the Alaskan St. Lawrence Island, with its many more potential readers.

THE ARCHAEOLOGY OF HUMAN-ENVIRONMENTAL DYNAMICS ON THE NORTH AMERICAN ATLANTIC COAST, edited by Leslie Reeder-Myers, John A. Turck, and Torben C. Rick

University Press of Florida, 2019.

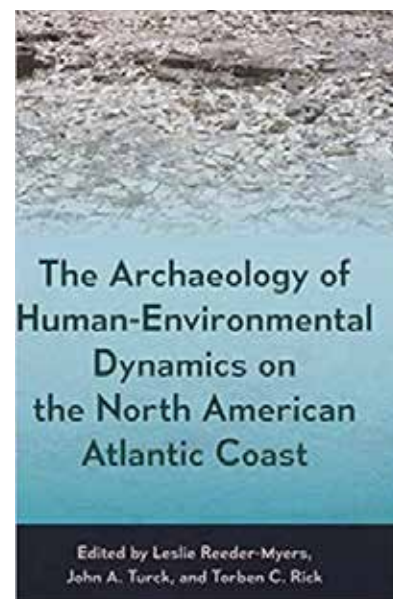
Reviewed by William W. Fitzhugh

Thirty-five years ago, the Anthropological Society of Washington published *Cultures in Contact: The European Impact on Native Cultural Institutions in Eastern North America, A.D. 1,000–1800* (1985. Fitzhugh, ed.). I certainly could not miss the opportunity to peer between the covers of **Reeder-Myers, Turck, and Torrey Rick’s** geographic sequel, covering the East Coast from Labrador to Florida and the Keys.

Like our earlier work, this, too, is an edited volume and comprises an introduction and nine essays. Born from a program of the 2016 Society for American Archaeology, the authors have taken on the task of reviewing the evidence for subsistence and environmental adaptations on a region-by-region basis. Each essay begins with environment and ecology and follows a chronological path to the present with descriptions of the major cultural stages—Paleoindian, Archaic, Woodland, Mississippian, and Historic with substages as needed. Each essay has an extensive bibliography, and the editors’ introduction and a concluding essay by **Thomas J. Pluckhahn** set the tone and frame the major issues and themes.

This region of North America has been a relatively quiet place archaeologically, with cultures developing slowly under relatively mild environmental and cultural restraints until the tumult of the Columbian era. Following the glacial retreat from northern regions and extremely rapid environmental change and sea-level rise, the entire region followed a more-or-less leisurely path of interlinked cultural development, in keeping with slow-paced Holocene environmental change. Except in the north, climate change was not the ‘big decider,’ as fires and droughts were not huge issues and hurricanes of ephemeral impact. The largest systemic environmental change was sea-level fluctuations—especially the rising levels that flooded out maritime cultural landscapes and greatly transformed the low-relief coastal areas from Maine to the Keys, truncating the archaeological record of coastal adaptations that are the central theme of the book. Many of the survey regions covered here have only 2,000–3,000 years of coastal archaeological records available for study.

All chapters provide excellent data on the economic basis for maritime cultural adaptations. And while less attention is given to artifacts and technology, pottery types, and mortuary practices, we learn much about U-shaped shell-mound villages and inventories of the shell- and fin-fish that sustained coastal peoples, seemingly throughout the Holocene, although most of that record is underwater or washed away. I missed learning more about the mega-fin fishing off the Florida Archaic, and the impacts on coastal peoples of political developments that came with agriculture and trade. And I was sorry not to learn more about boats and coastal connections south of Newfoundland. But I was very pleased to read about how coastal studies are contributing knowledge on ecological matters like resource depletion, shifting baselines, sustainable harvest levels, and the expected coastal dynamics that are going to be experienced frightfully as rising sea levels begin seriously flooding into our lives and infrastructure, as they have for Amerindians for thousands of years.



IN SEARCH OF FIRST CONTACT: THE VIKINGS OF VINLAND, THE PEOPLES OF THE DAWNLAND, AND THE ANGLO-AMERICAN ANXIETY OF DISCOVERY, by Annette Kolodny

Duke University Press, 2012

Reviewed by Gordon M. Sayre, University of Oregon, in Modern Philology 111(4), 2014, and reprinted courtesy of University of Chicago Press.

[Editor's note: Annette Kolodny's book investigating early contacts in North America is little known among archaeologists and historians of the Northeast. The book explores American identity from the perspectives of Norse sagas and Native American oral history, especially of the Mi'kmaq and Penobscot tribes. Although failing to take into account Norse and Basque contacts north of Newfoundland, her book is a font of historiography and describes the surprising effects Norse sagas and archaeological finds had on debates and perceptions of American identity.]

Following are excerpts from **Gordon Sayre's** review:

The challenge Kolodny's book sets for itself is one of historical archaeology, to bring textual, historical evidence from the [Norse] sagas into corroboration with physical archaeological evidence. The goal of this effort would be to show that the L'Anse aux Meadows site is one of the several outposts described in the sagas as having been established by **Leif Eriksson**, **Bjarni Herjolfsson**, and **Thorfinn Karlsefni**, and to explore archaeological or oral-history evidence that might verify hints in the sagas that when the Vikings reached Vinland, they had voyaged farther south than L'Anse

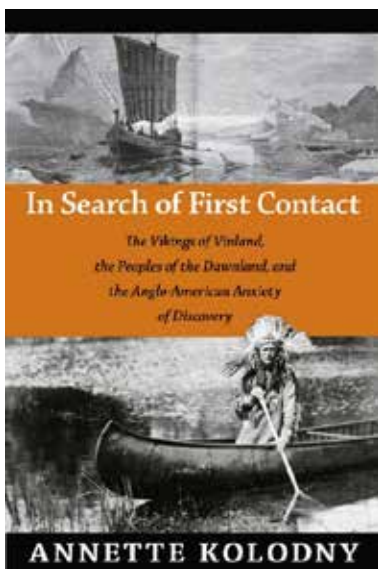
aux Meadows, to the Canadian Maritimes or even to New England. Kolodny admits in her book's preface that as she began her project, by studying the Vinland sagas and the ethnohistory of the Penobscot of Maine, she had formed a specific hypothesis: "Because the sagas described the Skraelings in 'skin boats' (or hide canoes), I was leaning toward

identifying the Mi'kmaq (who had used moose-hide canoes in earlier periods) as one possible candidate for the Skraelings encountered by the Norse in Vinland" (p.6).

The book breaks into three parts. The first two chapters provide a careful exposition and analysis of the sagas, and in this section, Kolodny appears to be searching for hints that the Norse did visit the lands inhabited by the Mi'kmaq (or eastern Abenaki peoples). The middle three chapters offer a study of nineteenth- and early twentieth-century American historians, poets, and folklorists who promoted the idea of a Viking landing, particularly in the Boston or Rhode Island region. These literati often worked with an ethnic or religious agenda of displacing the Catholic Italian Christopher Columbus from the honor of the discoverer of America, but the agenda was not so straight-forward as one might assume: "For U.S. Catholics, tenth-century converted Norsemen predated the pious seventeenth-century Pilgrim Congregationalists... Different figurations of Vikings and Northmen... could be employed both in Catholic-inflected and in Protestant-inflected versions of American history" (p. 225). **Carl Christian Rafn**, **Henry Wheaton**, **Eben Norton Horsford**, and **North Ludlow Beamish** are among the obscure nineteenth-century authors who promoted the idea of a Norse landing in the United States, and **William Gilmore Simms**, **George Perkins Marsh**, **Henry Wadsworth Longfellow**, and **John Greenleaf Whittier** among the better-known literary figures who wrote novels, poems, and histories on the theme.

The last two chapters are a study of Native American oral history in search of tales that might record encounters with the Norse nearly a thousand years ago. Kolodny is admirably honest in not clinging to her hypothesis after she fails to find evidence to confirm it. She reveals how several pieces of evidence once used to prove a Viking landing—such as the petroglyphs on Dighton Rock, alongside the Taunton River in Berkley, Massachusetts; a stone tower in Newport, Rhode Island, that was in fact built in the seventeenth century; a skeleton unearthed in Fall River, Massachusetts, in 1832; and the runestones dug up near Alexandria, Minnesota, in 1898 and at Spirit Pond, Maine, in the 1970s—all proved to be willful misinterpretations or hoaxes.

Among the Mi'kmaq tales, Kolodny finds the most suggestive is "The Dream of the White Robe and the Floating Island," told by **Josiah Jeremy** and recorded by the Baptist missionary **Charles Godfrey Leland** in 1869. Kolodny shows how Leland tried to find "a pre-Columbian nordic influence" in the tales of the Mi'kmaq culture hero Glooskap. Leland also sought to dispel the influence of earlier Catholic missionaries such as **Chrestien LeClerc**. This particular tale,



like other first-contact prophecy tales among Native Americans, suggests that the Natives foretold the coming of European invaders yet were unable to turn them away as the Skraelings did the Norse. Hence, as Kolodny points out, these tales are “not easily dated, nor do we even know when they were most widely circulated [:]...prophecy tales are not merely the representations of cultural continuity; they are themselves the carriers of that continuity” (p. 294).

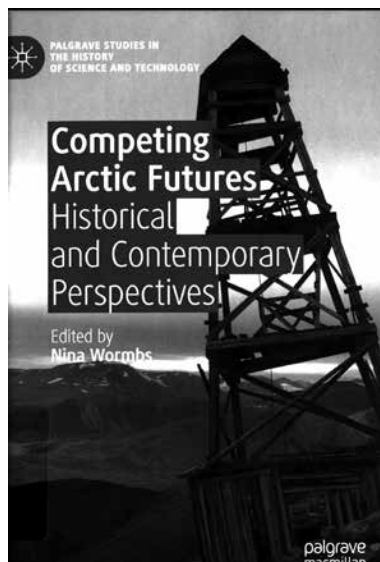
Ultimately, the tales told by Algonquian peoples and the sagas of the Norsemen are revealed not to be contrasting accounts of a single violent confrontation between two cultures. Instead, they are snapshot versions of evolving oral histories. The Norse did not seek to subjugate or even trade profitably with the “Skraelings” they encountered. The Algonquian do not clearly distinguish among different Europeans they may have met at different times and places. The notion of first contact, of a mythopoeic landfall such as that of the Pilgrims at Plymouth Rock, is a modern desire that comports poorly with the sources that have endured from ancient storytellers.

COMPETING ARCTIC FUTURES. HISTORICAL AND CONTEMPORARY PERSPECTIVES, edited by Nina Wormbs

Palgrave MacMillan 2018, 281 pp.

Reviewed by Igor Krupnik

This book has a dazzling title (‘Futures,’ in plural), and it delivers much more than its title actually suggests. It is a collection of 11 chapters compiled and edited by our colleagues at the KTH Royal Institute of Technology in Stockholm, Sweden. An outcome of the project *Assessing Arctic Futures: Voices, Resources, Governance* funded by the Swedish Foundation for Strategic Environmental Research (MISTRA), the book brings together partners from Sweden, UK, Canada, and Russia who co/authored



chapters book-ended by Introduction and Conclusion pieces written by the project leaders, **Nina Wormbs** and **Sverker Sörlin** (both of KTH), respectively.

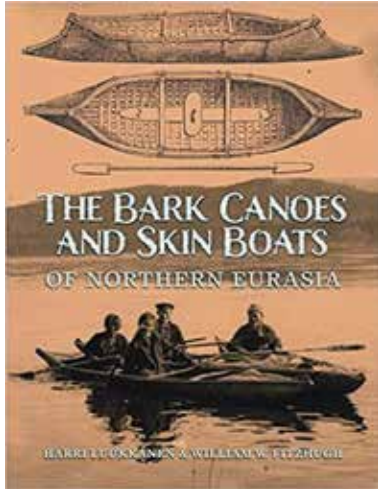
It is the ‘book-ends’ that provide the main theoretical and intellectual punch of the project and its publication. According to Wormbs and Sörlin (speaking with different voices and from individual perspectives), the very concept of the ‘future’—in this case, the ‘Arctic future’—is a social construct that reflects the spirit and ideology of the era or the position of its author or the group/cohort/ideology he or she represents. As such, the vision of the future is always the projection of a particular viewpoint of the present; it is no surprise that there may be many angles/visions at one time and that these visions may be in utter disagreement and open competition. In that sense, today’s visions of the Arctic future—as the last industrial frontier, a bonanza for extractive industries, a shortcut in trans-continental transportation and commerce, a prospective battleground for political and military superiority, the last pristine wilderness, the frontline of planetary climate change, or the homeland of its Indigenous people—are all legitimate and competing projections of today’s ideological disputes. It matters little whether such disputes about Arctic ‘futures’ were held in the 1500s (**Martin Frobisher’s** and British Muscovy Company era), in the mid-1800s (the Sir **John Franklin** expeditions), in the 1920s (*The Friendly Arctic* of **Vilhjalmur Stefansson**), or at today’s meetings of the Arctic Council. There always have been many concepts of the future, and they were often, if not always, competing.

My short summary provides just a glimpse of, but no good service to, this intellectually heavy-loaded collection. The two book-ends provide a theoretical framework for the book’s nine historical case stories—about the changing visions on the future of energy resources in the Canadian North (1921–1980) and of mining resources on Svalbard; the Russian/Soviet rush in the 1930s to skim the fishery riches of the Russian Arctic for ‘building socialism’; the ‘modernist’ models of Russian Arctic urbanism in the 1960s; and contemporary Sami visions of their political future. Each story is a saga of yet another intellectual and political endeavor in-itself, and more often than not, of a failed endeavor—in good accordance to the ‘competing futures’ theory that assumes many more ‘vision’ losers than winners. We salute our Swedish colleagues and their international partners on their remarkably stimulating and inspirational book. Having ‘many competing futures’—instead of just one—is actually a very optimistic approach in addressing the past, the present, as well as the future.

Coming Soon

BARK AND SKIN BOATS OF NORTHERN EURASIA, by Harri Luukkanen and William W. Fitzhugh

Smithsonian Books and Random House 2020



It has been eight years since **Harri Luukkanen**, and I started working on an ethnographic boat atlas of northern Eurasia, and in September of 2020, the book will finally be published by Smithsonian Books and Random House. It's shocking to think that each of us could have completed two Ph.D. programs during this time!

For the first four years, the work was mostly on Harri's shoulders—resting not as comfortably as if he was portaging a canoe! He did much of the basic research and drafting, and I embellished with archaeology and anthropology around the edges. Then, during the past four years, most of the late-night oil has been burning on my side of the Atlantic, as I went back and forth with as many as four editors and wrestled identifying obscure quotations, straightening out bibliographic complications, securing illustrations and permissions, and overseeing artwork. Without question, 'canoes' has been the most complicated scholarly endeavor I've ever done. Many of our illustrations and citations are from diary accounts from the 17th–19th centuries,

originally written in German, Russian, or French—rarely English—and then translated or published or re-published in myriad editions. As the decade dragged on, I became in awe of Medieval scholars and librarians!

Now the final corrections have been made, and the book will be out in September 2020. Then we shall see how close we came to make a modern sequel of Tappan Adney's and Howard Chapelle's American classic, *Bark and Skin Boats of North America*!

Thanks to all who helped us on this fascinating paddle journey across Eurasia and Bering Strait.

QIMMEQ: THE GREENLAND SLED DOG, edited and with photographs by Carsten Egevang

A new book about the Greenland sledge dog is being released this spring. *Qimmeq* is part of a study project organized by Morten Meldgaard and the University of Greenland whose aim is to educate and provide recommendations for the sled dog's future at a time when Arctic warming in northern Greenland is placing this revered animal at risk. In the introduction, we read: "The Greenland sled dog is an amazing and charismatic animal. It is strong, character-full, and adaptable beyond almost anything else. It can engage an enraged polar bear or on the sea-ice can pull heavy sleds loaded with tourists or meat and fish. The following day it runs furiously and determinedly to win the annual dog-sled race." *Qimmeq* has contributions from fourteen authors who participated in the project over the past four years. Topics include genetics, behavior, health, and cultural history. Photographs by Carsten Egevang demonstrate present-day use of the Greenland dog and its strong bond with humans. The results of the project include policy recommendations to ensure the future of this most-beloved animal (<https://www.sumut.dk/da/arrangementer/2020/boglancering-paa-carsten-egevangs-qimmeq/>).



Model of a Labrador kayak made by John Terriak of Nain, Labrador, for Xabi Otero in the 1970s. Photo by William Fitzhugh

TRANSITIONS

**ART, GODS, AND ATVs AT BAKER LAKE:
PILGRIMAGE TO JESSE OONARK**

By Richard D. Mohr

To get there, this cityfied boy would have to learn how to control an All-Terrain Vehicle. There is the gravesite of **Jessie Oonark** (O.C., 1906–1985), Baker Lake’s most famous artist. The art I like best comes from Baker Lake, so, in August 2018, I visited the hamlet for a week to meet with its artists, get some sense of their day-to-day lives—and make a pilgrimage to Oonark’s resting place out on the land. And what land it is.

Here the land is not just a patch of the earth extending indeterminately outward. Rather it is granite and ground. The land is water and the possibility of life.

The land is willow and lichens and berries, collectively the start of the local food chain.

Still more, the land is the outside, the sky, the weather, breath, the spirit of spirit. It is awareness, discernment, life itself, in short, the lost Inuit divinity *Sila*.

In his 1975 Baker Lake memoir, *Shadows*, **Armand Tagoona** (1926–1991), an artist and the first Inuk to be ordained an Anglican minister, recounts that “Inuit used to believe that there is a *silaup inua*, or ‘man of the air,’ who controls everything and watches the Inuit.”

In 1922, the shaman Kinalik introduced **Knud Rasmussen** to *Sila* at Baker Lake: “On this clean and untrodden place, I was to exhibit myself to *Sila*, stand silent and humble with downcast eyes and merely desire that the sky, the weather, and all the forces of nature should take notice and have pity on me.”

In 2007, the Nunavut Department of Education, though without naming *Sila*, incorporated this expanded understanding of “the land” into its model curriculum as a fundamental Inuit value (*Inuit Qaujimajatuqangit: Education Framework for Nunavut Curriculum*, p. 24.)

In Baker Lake, ATVs outnumber cars by four or five to one. As is common across Nunavut, all ATVs here are referred to as Hondas, whatever their brand or make.

They are the basic way of getting around town and out on the land. For Inuit, driving Hondas is like breathing. Eight-year-olds whiz by on four-wheelers going 40 mph. Locals were puzzled that I did not own a Honda and flabbergasted that I had never ridden on one.

The last two miles up to Oonark’s grave are scree of red granite boulders. My excellent guide, David Ford,



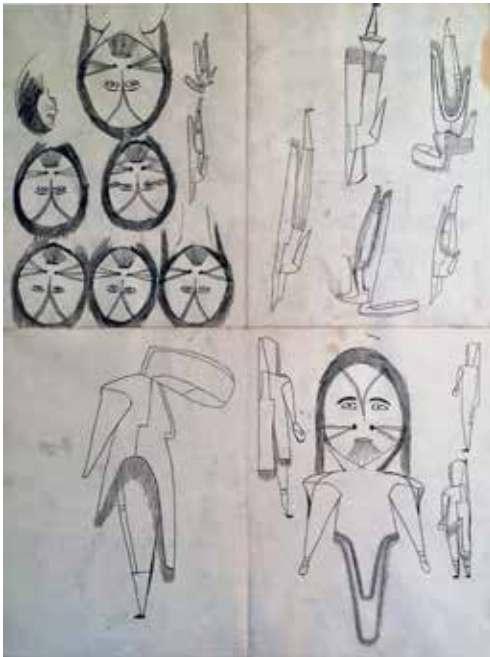
Jessie Oonark (1906–1985), Baker Lake’s most famous artist, as pictured in Baker Lake Prints 1983–1984. The bold, the bright, the brash — the overall verve — of her wall-hangings and prints established the distinctive con brio style of Baker Lake art. Of her children who survived infancy, all nine became artists. Source: Canadian Arctic Producers



Here the land is not just a patch of earth extending indeterminately outward. Rather it is granite and ground. The land is water and the possibility of life. The land is willow and lichens and berries, collectively the start of the local food chain. Photo by Richard D. Mohr

the general manager of the Jessie Oonark Centre—a Nunavut Development Corporation gift shop, art gallery, and makers space—thought a three-minute lesson on my designated rock mobile, dodgy brake included, was sufficient for the ascent.

And so, with a thousand what-ifs shoved out of mind, off I go—bounce, bounce, bounce, jolt, buffet, jolt.



A fourfold pencil drawing by Jessie Oonark from 1959. The figures in the two quadrants on the right side of the 24" x 18" sheet became the prints, "Tattooed Faces" and "Inland Eskimo Woman" in the 1960 Cape Dorset print collection. Collection: Winnipeg Art Gallery. Photo: Richard D. Mohr



This proof of the 28" x 40" print, *Giver of Life*, is illustrated in *Baker Lake Prints 1983–1984*. Source: Canadian Arctic Producers

We reach the top just as dusk begins to hover. A shank of sunset ruddles the heavens and extracts deep reds from the granite expanses. Mats of autumn-tinged Alpine bearberry and Arctic willow, irradiated into a carmine haze, stretch towards an infinitely remote horizon.

The air glows, vibrates, breathes red, becomes life incandescent. My metal bronco has transported me to sacred space.

The arc of Oonark's extraordinary life perhaps offers a model for navigating the shoals of contemporary hybrid Northern culture.

On March 31, 1958, within a few calories of death by starvation, Oonark was collected from the land and brought into Baker Lake by Mounties who had flown out to try to locate her iglu when her son **William Noah** (b. 1943), himself driven by starvation toward Baker Lake, reported her dire straits to authorities.

She took whatever work she could find. She was part of the Utkuhikhalingmiut, who from among the nine Inuit groups that consolidated into Baker Lake during the starvation times of the late 1950s had had the least contact with whites and who were looked down upon by the rest. So, between this social impediment and the late date of her arrival, only lousy jobs were available to her. She cleaned skins for the Hudson Bay Company and was a scullery maid at the Anglican Church.

Soon enough, though, whites were handing her paper and pencils. Late in 1959, she drew four groups of Inuit women on a single sheet that was sent to Cape Dorset, where two appeared in the celebrated 1960 Cape Dorset Print Collection. So, in just two years, she turned from death's door and belittlement to national celebrity.

Oonark was a devout Anglican, according to the Baker Lake art-advisor **Jack Butler**, "certainly the most devout Anglican in Baker Lake." Though her father had been active as a shaman, she witnessed for the Lord at the age of 21 in 1927 and was formally baptized in 1943. She produced only a smattering of explicitly religious works, but they span the length of her artistic career, culminating in 1984 with the Good Friday-themed print *Giver of Life*, the artist's proof of which she sent to the Pope when he was in Ottawa that September.

Oonark was always a bit of a rebel. In the 1910s, she bucks the ritual of girls being tattooed at puberty. In the mid-1970s, this devoutest of Anglicans starts producing artworks for Catholic publications. And then in 1984, she presents the artist's proof of her Good Friday-themed print *Giver of Life* to the Pope.

The devout Anglican goes rogue. And then when she dies in February of the next year, she has herself buried not in Baker Lake's gorgeous Anglican Cemetery, but all by herself atop the only hill anywhere around.

The grave orients her facing due East with her sightlines skirting the village. This positioning, in turn, entails that visitors to the grave are oriented toward the land, the sky, the light, the air, the weather, awareness, discernment, the spirit of spirit, life itself—*Sila*.

MICHAEL E. KRAUSS, 1934–2019

By Igor Krupnik

Michael Krauss, the towering figure in the studies of Northern indigenous languages and the first director of the Alaska Native Language Center, an institution he created at the University of Alaska Fairbanks (UAF) in 1972 and led till his retirement in 2000, passed away on August 11, 2019, four days short of his 85th birthday. He had a distinguished career of almost 50 years in the documentation, support, and promotion of the world's endangered languages.

Born in 1934 in Cleveland, OH and trained at prime American schools (B.A. University of Chicago, 1953; M.A., Columbia University, 1955; Ph.D., Harvard University, 1959), Krauss spent five years, 1955–1960 studying, researching, and living in Paris, Copenhagen, Dublin, rural Ireland, Iceland, and the Faroe Islands. He spoke Irish Gaelic, Danish, Icelandic, and Faroese, also French, some Russian, and scores of Alaskan indigenous languages. His exposure to the plight of the dwindling Irish Gaelic prepared him for his next career step when in 1960, he started teaching French in small Department of Linguistics and Foreign Languages in America's northernmost university in the town then named "College," Alaska, the future University of Alaska Fairbanks.

The fledgling university had little of today's riches and neither resources for nor interest in any work on Alaskan indigenous languages. Krauss had to overturn this attitude working from scratch, with no allies, and no intellectual background of today's Documenting Endangered Languages (DEL) movement. He had to persuade his university colleagues and administration to gain their support to lobby the Alaskan state legislature to produce several bills supporting research and education in indigenous languages and to build an entirely new structure, the Alaska Native Language Center (1972), to implement his program.

Krauss' third life-changing shift was in winter 1991, after a prophetic address at the Linguistic Society of America Annual Meeting, titled *The World's Languages in Crisis* (published in 1992.) The address and paper became a powerful call to arms for the international community of linguists and made him an instant front-runner in this emerging movement. His last and final moment was in 2007, years after his retirement from UAF, when he led a major NSF-supported project to fill gaps in our knowledge of Native Alaskan Languages. That project alone, a part of the U.S. contribution to the International Polar Year 2007–2008, produced several published dictionary and grammar volumes and scores of major manuscripts, including Krauss's own



Michael Krauss with Marie Smith Jones, the last speaker of Eyak Language, Cordova, Alaska, 2006.

Photo by Molly Lee

monumental *Eyak Grammar* of 850+ pages that now should be published posthumously.

To his colleagues at ASC, Krauss was a trusted, yet sometimes testing friend. He was an enthusiastic member of the first IREX-funded collaborative project between Russian (then Soviet) and American anthropologists called "Peopling of the New World" that brought him to Moscow, St. Petersburg, and Yakutsk in 1977–1978. When that effort faltered and was supplanted by the Smithsonian-led *Crossroads of Continents* exhibit program, Krauss was very supportive of the new effort. He contributed chapters on the status of Northern languages to the *Crossroads* catalog (Fitzhugh and Crowell 1988) and to the *Anthropology of the North Pacific Rim* 1988 symposium volume (Fitzhugh and Chaussonnet 1994), as well as his map of indigenous languages of the Greater North Pacific area that was used in both the *Crossroads* and the 'mini-Crossroads' (*Cultures of Alaska and Siberia*) exhibits and catalogs. He welcomed the establishment of the ASC in 1988 and was an enthusiastic partner in our "Jesup-2" program since 1992, a speaker at the Jesup Expedition centennial conference in New York in 1997, and our trusted consultant on all things related to Northern indigenous languages and linguistic documentation. His powerful presence and encyclopedic knowledge will be direly missed, and his role as the "dean" of Alaska Native Language studies is irreplaceable. No one can forget his role as a mentor, trail-blazer, and a living bridge to Siberian kin more than Alaska Native people themselves.

CHESTER NOONGWOOK, 1933–2020

By Igor Krupnik

Chester (Tapghaghmii) Noongwook, Yupik Elder from the community of Savoonga on St. Lawrence Island, Alaska, and a long-term partner on ASC projects in the documentation of Indigenous knowledge passed away in January 2020, at age 86. Chester was born in Savoonga in 1933 to the large family of **Nathan (Qagughmii) Noongwook** and **Jeanette (Naluwi) Noongwook** of the St. Lawrence Island Pugughileghmiit clan that originated from the ancient site of Pugughileq at the island Southwest Cape. Chester's life was like that of many men of his generation. He was a subsistence hunter, a boat captain, but also a member of the Alaska National Guard for 36 years, a dog-sled mail carrier between Savoonga and the other island town, Gambell—"the last dog-sled mail carrier in Alaska," as he loved to say), and an agent for Wien and Munz Airlines operating out of Nome. In his later years, he served as the Savoonga representative at the Eskimo Walrus Commission, an elder advisor for Savoonga Whaling Captains Association, and as a village reindeer herder chief.

What made Chester so special among his cohort of elderly experts on St. Lawrence Island was his remarkable knowledge of marine mammals, of subsistence hunting, and his keen interest in environmental change and, generally, in Natural History. That specific knowledge focus came from his decades of being a hunter, a successful boat captain, but also an astute observer of land and waters of his home island. He was the striker on his father, Nathan Noongwook's, crew that was the first in almost 100 years to re-start bowhead whaling from their ancient home village of Pugughileq in 1971. In spring 1972, he struck Savoonga's first whale to be landed and butchered at Pugughileq and followed on with ten more landed whales of his own. Being mentored by his grandfather, **Olin Noongwook** (Nunguk), he accumulated deep knowledge on whale and walrus distribution, migration paths, and seasonal behavior around his home island and, generally, across the northern Bering Sea. In the 1980s, he collaborated with walrus biologist **Francis "Bud" Fay** and his students in studying the walruses off St. Lawrence Island, and he shared his knowledge generously both with visiting scientists and younger community members.

We began working with Chester in late 2000 when he volunteered to be our Savoonga observer and expert on the "Watching Our Ice and Weather" project documenting local observations of sea ice and climate change, funded by the U.S. Marine Mammal Commission. For seven months (December 2000–June 2001), he dictated his daily observations of ice and weather conditions in his native Yupik language,



Chester Noongwook in 2007. Photo by Hiroko Ikuta



Chester Noongwook working with Vadim Yanan on illustrations for St. Lawrence Island Yupik Sea Ice Dictionary in 2000. Photo by Igor Krupnik

interspersed with his personal stories, travel advice, and knowledge tips from his grandfather Nunguk. Local Yupik teacher, **Christina Aloowa**, recorded and translated Chester's daily logs that eventually built up into a unique chronicle of observing ice and weather "the Yupik way." These stories and Chester's other contributions to the project, including his many photos of ice types were published in a bilingual book, *Watching Ice and Weather Our Way/Sikumengllu Eslamengllu Esghapalleghput* (2004), a joint product of the ASC and Savoonga Whaling Captains Association that featured Chester's name and was also displayed in the Smithsonian exhibit, *Arctic: A Friend Acting Strangely* in 2006–2007.

Chester had a big heart and a penchant for befriending people who became interested in his home island and his community's knowledge, history, and cultural tradition. He treated us as a friendly and generous mentor, always eager to share, to support, and to enjoy new partners. He was a pleasure to work with. He will be greatly missed by his family, by the vibrant community of Savoonga, but also by many of us, who remember his friendly smile and his unyielding dedication to what we call today the "co-production of knowledge" in the interest of all.

DENNIS STANFORD (1943–2019)—A TRIBUTE

By William W. Fitzhugh

In the early 1970s **Clifford Evans**, then Chair of the Smithsonian's Anthropology Department, created a *Paleoindian Program* at the National Museum of Natural History. Clovis was well-established in the literature, but its origins and antecedents were mysterious. **Dennis Stanford** had just received his Ph.D. on Thule culture studies in Barrow, Alaska, but his real love was Paleoindians.

After arriving at the Smithsonian, he picked up the long-dusty mantle of the Institution's pioneering Paleoindian researcher, **Frank Roberts**, and instituted large-scale projects at Jones-Miller, Dutton-Selby, and other Paleo sites. Several decades of federal funding provided resources for long-term research. Year-after-year, his papers, reports, and lectures (many to amateur and popular audiences) generated solid data and tested intriguing and sometimes controversial hypotheses. He served as chair of the Anthropology Department, trained students, and built a Paleoindian collection that became a national resource and attracted worldwide attention. I worked down the hall from Dennis and shared interests in northern peoples, lithic technology, and early hunting societies.

Dennis' passing on 24 April 2019, at age 75, gives me pause to reflect on the 47-year "Stanford Phenomenon" and how it challenged his colleagues and brought public awareness to America's first peoples. I do this by sharing a recommendation I wrote for his nomination for a Smithsonian Secretary's Research Prize, which he received in 2016.

Publication of *Across Atlantic Ice: The Origin of America's Clovis Culture* by Stanford and **Bruce Bradley** was the highlight achievement of Dennis' career. While the book is co-authored, Dennis' vision

dominates the work, and he produced much of the data supporting its radical vision of the peopling of the Americas.

Contributions to Science: There are many who question Stanford's and Bradley's central thesis that there is a European component in the origin of the earliest Native Americans. The theory is still highly contested by archaeologists, but its importance lies as much in its painstaking search for a breakthrough in Paleoindian

archaeology as in the claim that the Solutrean culture, or one closely related to it, crossed the North Atlantic at the peak of the last Ice Age 16,000 years ago. Even archaeologists who believe the proposal can only be considered a hypothesis acknowledge that it advances a reasoned argument that challenged the way we look at Paleoindian origins.



The monograph developed over several decades during which the authors gradually expanded their knowledge from tightly-focused field studies of Clovis sites and artifacts to investigations of sites whose remains might be construed as Pre-Clovis on stratigraphic, typological, or chronometric grounds. With growing evidence of pre-Clovis as a cultural reality, to which Stanford was a major contributor,

he and others explored the possibility for Clovis roots in East Asia and Siberia. But when data failed to appear, Stanford and Bradley began to consider why so many more Clovis sites and artifacts are found in Eastern North America than in their putative homeland in the Plains, or in Alaska, closer to Asia.

As the numbers of eastern sites grew and pre-Clovis levels were found and dated earlier than 13,000, a new solution seemed called for. After studying Solutrean bifaces and technology in France and northern Spain, highly specific similarities appeared that are rarely, if ever, seen in other bifacial traditions except Clovis, and the Solutrean hypothesis took shape, nurtured by the realization that environmental conditions in the Ice

Age North Atlantic might not have been the impossible barrier once envisioned. If Ocean navigation could bring humans to Australia by 60,000 years ago and around the fringes of the North Pacific to North America by 15–20,000 BP and to Monte Verde in Chile by 14–15,000 BP, it might have been possible for humans capable of spectacular Upper Paleolithic cave art in Western Europe to move across the North Atlantic pack-ice fringe and island skerries as well.

One of the most well-researched and convincing parts of the argument is the reconstruction of the late Ice Age North Atlantic maritime environment. No archaeologist or paleoecologist has previously attempted to interpret the conditions under which a crossing of this often-violent ocean might have been made at the height of the last glacial. But by amassing detailed cutting-edge data from marine and climate sciences, and from paleoecological and contemporary zoological literature, Stanford reconstructed a picture of what this sea-ice-scape environment might have been like for people using skin boats similar to those used by modern Inupiat Eskimos of North Alaska, with whom Stanford worked for several years.

Popular Communication: Dennis's skills at communication have been legion for years. His professional papers were well-received and beautifully illustrated. Throughout his career, he presented his work to avocational archaeologists across the country and was rewarded with information rarely accessible to professional archaeologists. New artifacts appeared, unusual sites were revealed, and eventually, fishermen began pulling mammoth remains, and strange Solutrean-like points from dredge hauls off the Continental Shelf. Eventually, enough data was assembled to make a credible case presented in *Across Atlantic Ice*. The search for a real smoking gun continues, but now it continues as part of a legitimate scientific endeavor, not as fringe science. In the process, Dennis also added legitimacy to the avocational archaeologist, and at the same time, demonstrated scientific methods that are helping bridge the gap between the professional and the amateur prehistorian.

Service to the Smithsonian: Beyond this particular book, Stanford built a huge collection of research materials: artifacts, data, photographs, and casts. Beginning with digs documenting Clovis culture, Dennis expanded his geographical field to include North and South America, then studied sites and collections in northeast Asia and Siberia, and finally explored Solutrean collections in Europe and offshore underwater sites. These projects contributed rafts of field data that made the Smithsonian a major center for Paleoindian studies in North America. For years to

come, researchers will find the Smithsonian a 'must visit' place for research on the earliest Americans.

Apart from research collections and scientific collections, Dennis contributed in major ways to the intellectual and social life of the Smithsonian. He served as Department Chair, contributed to exhibits, frequently lectured to Smithsonian audiences, and became involved with a wide circle of colleagues from different NMNH Departments and SI bureaus. He and his wife, **Pegi Jodry**, also a highly respected Paleoindian expert who partnered in much of Dennis' research, have been especially generous to our older colleagues when they grew elderly and infirm, and their hospitality has been appreciated by a wide circle of visiting scholars, students, and fellows. I would often tell inquirers that while it is likely your email would not be answered; satisfaction was guaranteed if you just dropped by Dennis' office.

In 1972, when Dennis was hired, it seemed like a crap-shoot to predict what this cowboy-booted, tobacco-chewing wrangler would turn out to be as a researcher and curator. But it seems Cliff Evans had an eye for discovering gems in the sage-brush. Dennis was a Smithsonian star, a much-loved colleague, and a distinguished scientist, highly respected by his peers, the Native community, and his friends and associates. We miss his science, his wit, and his generosity.

RICHARD K. NELSON, 1941–2019

By Karen Mudar, from her NPS Archeology E-gram of December 2019



Richard K. Nelson died on November 4, 2019, listening to the recorded sound of ravens. His last request was fully in keeping with his tremendous passion for the natural world, and most especially for the ravens he knew well from many decades of living

in Sitka, Alaska. Born in Madison, Wisconsin, in 1941, Nelson earned his B.S. and M.S. in anthropology at the University of Wisconsin and his Ph.D. in anthropology at the University of California, Santa Barbara. He first began to live among the Iñupiat hunting communities in Alaska in 1964, eventually producing the book *Hunters of the Northern Ice* (1969.) He later published such works as *Shadow of the Hunter: Stories of Eskimo Life* (1980) and *Make Prayers to the Raven: A Koyukon View of the Northern Forest* (1983.)

With *Make Prayers to the Raven*, Nelson moved from anthropological studies to a more literary style that became the basis for a five-part public television series. Nelson's next book, *The Island Within*, won the John Burroughs Medal for distinguished natural history writing. He also received the Lannan Literary Award for creative nonfiction writing and, from 1999–2001, served as the Alaska State Writer Laureate.

Nelson's more recent works include *Heart and Blood: Living with Deer in America and Patriotism and the American Land* (book two in *The New Patriotism Series*.) During the decades since publication, Nelson's books have become elegies to more traditional lifeways and skills. His lyrical prose and affinity for his subjects, human and animal, influenced a generation. We were fortunate to live during his time.

Nelson was also a dedicated environmentalist. He worked to protect the old-growth rainforest in Alaska's Tongass National Forest and was a member of the Harriman Alaska Expedition retraced. Later in his life, Nelson turned to soundscape work and recorded 100+ 30-minute radio programs, called *Encounters*, covering subjects from hummingbirds to humpback whales to the life-giving magic of rain. To listen to Nelson's podcasts, go to www.encountersnorth.org,

“GOOD CLEAN FUN”—REMEMBERING BILL KEMP, 1936–2020

By Scot Nickels, Elizabeth Cundill, and Eric Loring

Sometimes a person's life is so huge and impactful that it's impossible for one person to capture its essence. **Bill Kemp** was one of those individuals. When asked to talk about Bill, where do you start? What do you leave out? How can we paint such a story? In this case, it took three of us. We all had different roads to Bill, but he left a very strong place in our hearts.



Scot Nickels: I first met Bill in Montreal in 1998.

Of course, I knew about him and his work long before. In my area of work, he was always a bit of an enigma, having conducted very influential work and written important publications, but never following the path of becoming a professor. This made more sense to me as I got to know him better.

I was just finishing my Ph.D. at McGill and was thinking about taking a job at Inuit Tapiriit Kanatami

(ITK), the national organization that represents the Inuit of Canada. I had already been working in the Arctic for many years and sought Bill's and his wife Lorraine Kemp's advice on the pros and cons of taking such-and-such a position. Given their years of experience in Inuit Nunangat, I figured they might have some informed perspectives.

Much to my surprise, they were both willing to meet and give advice, although Bill was quick to point out, “you may not want the advice I give.” At the time, I thought their agreeing to meet was very generous and perhaps a bit unusual that two individuals of this caliber and credential would take time for a conversation with a Ph.D. candidate. They suggested we meet at the Café Olympico, and there we talked over a wonderfully strong cafe au lait...or was it a few espressos?

My first impressions of Bill would remain accurate to this day and were traits I would later try to emulate in my life. He was friendly in a genuine sort of way, not shallow or frivolous. He was a thinker, and always generated interesting conversations and ideas without being pompous or academic. He loved the discussion and could both listen and debate in a non-controversial manner. He was generous, both with his time and thoughts, and I left the conversation feeling empowered rather than being spoken to. Later, I would see that Bill didn't mind hard work and putting in long hours for the things he felt were worthy, but he always interspersed work with life's simple pleasures, like tasty food and a good espresso.

From this first meeting stemmed several interactions at his home, his various “offices,” or favorite restaurants and coffee shops in Montreal. I remember fondly the many dinners at Bill's and Lorraine's house, of guests passing hours eating, drinking, and solving the world's problems around their long (very long!) dining-room table. The nights went late but never felt that way, as we enjoyed several interesting recipes and featured alcohol, hand-selected by Bill and Lorraine. Bill was into the quality and slow movement (as opposed to fast food) long before this became a thing.

Over the last decade, I would meet Bill in Ottawa while he was trying to gather *Inuit Land Use Occupancy Project* (ILUOP) information from Library and Archives Canada, where it sat “undiscovered” for over 40 years. Bill felt a personal responsibility to repatriate this work to Inuit and make the vast repository of information useful in the form of a geospatial information system. The potential of ILUOP Inuit knowledge and information for contemporary comparison is staggering. I helped him secure some meager funding to complete the Nunavut and Inuvialuit sections of the project, but

Bill donated much of his time to the endeavor. It was a hugely important project, and he spent years pulling it together.

I feel privileged to have enjoyed one of Bill's famous home feasts a few months before he passed away. On this indelible night, he spoke of his past work, his Coppermine canoe trip, and other memorable and exciting incidents. He spoke of how the work Inuit conducted through ILUOP has influenced indigenous peoples around the world, the methodology having been taken to Africa, Asia, and Central America. He was in great form, and it was difficult to tell that this was a man suffering from a brain tumor. At one point, he left the table to bring down a large framed picture of a dear Inuk friend to say a few touching words. He had a tear in the corner of his eye as he spoke, and we were all silent and touched by his sincerity. I had a few tears myself that night.

I would have liked to have had the opportunity to speak to Bill one last time to close the circle and tell him that after 21 years of work, I finally left ITK. I imagine he would have tilted his head slightly, smiled, and said something witty about our first encounter at *Café Olympico*. I can hear him say with a laugh, "it's about time!" I would then tell Bill that I am indebted to him for his mentorship, example, and friendship. I am proud to have known and worked with Bill over the years and will miss him deeply.

Elizabeth Cundill: Bill Kemp gave me my first job in 1997 as an independent contractor. He hired me after an interview that lasted about seven minutes. I was pretty sure at the time, and certain today, that the reason I got that job was because Bill needed to fill a role by a deadline that had already passed. The job was to make maps of living-memory hunting grounds and Inuit occupancy in Povungnituk, Arctic Quebec. From a few stints as a research assistant on Baffin Island, I knew this would not be as simple as it sounded. "We'll get you prepared; I'll introduce you around." Bill gave me confidence. When my plane landed in POV a few weeks later, I still couldn't put a finger on exactly what

my project's goals really were. "Listen to what they want," he said. Wise words, forever tattooed onto my imagination.

Bill's open-ended deliverables taught me to be quiet, to listen, to stay flexible, and to let Inuit lead "my" research. Approaching most things with an open-ended outlook gave any research project (or one of his dinner parties) the quality, scope, and meaning that was inherent in everything Bill put his stamp on. He let others lead, thereby creating a generation of leaders. That summer, when the snow geese flew over Povungnituk, and every hunter seemingly evaporated, and my work came

to a standstill, Bill suggested: "What about the women?" I started recording stories and maps of outpost life, childbirth, medicine, clothing, and child-rearing that gave scope and color to the work that was well beyond the original mandate, which, at that point, had been forgotten or surpassed. The research morphed, guided by what the Povungnituk Inuit wanted to record, not by the purposes of the land claims organization that had hired us to fulfill a political promise made long ago. To this day, my research partner on the project, Paulusi

Novalinga, talks about how meaningful the work we did continues to be, how his pride in it grows with every year, and what a gift it is to local youth.

The last time I saw Bill was at Montreal's Atwater market on a warm day in May, his arms full of arctic char, Belgian cheese, fresh asparagus. This is how I will remember him best, for underlying most of Bill's impulses were the dishes he would furnish and the mix of old and new friends he would share them with. How quickly he could fill his kitchen with friends who happily drank and talked for hours while he filled his and Lorraine's home with seductive aromas. Dinner served at the long dinner table after 10 pm was the norm. So was being a little drunk and already full of delicious hors d'oeuvres. Bill shared his love for life by being generous with sophisticated tastes and plates, and he shared himself by giving his attention and intellect in all its fine detail. This was Bill, seven days a week, in work and in life.



*Liz Cundill and Bill Kemp in the Makivik Office in 1998 inspecting the Povungnituk Mapping Project.
Photo by Eric Loring*

Eric Loring: It's not often that coffee can change one's life forever, especially since I am a tea drinker. But it did one spring morning in Montreal in 1996 when I first met Bill Kemp at Java U, a coffee place owned by a friend. Of course, I have known about Bill since a young lad in the early 1970s from his *Scientific American* article, "The Flow of Energy in a Hunting Society," and of his work in both the Inuit Land Use and Occupancy Report and the Smithsonian *Handbook of North American Indians*. But perhaps my best inside information on Bill came from one of his former students who were then my supervisor, **George Wenzel**. I didn't know it then, but that morning coffee initiated a new phase of my life, one of great enlightenment, joy, and love.

Bill's life is far too rich and complex for me to explain. I relished the chance to be around his energy and excitement, and his total sense of enjoying life. This was Bill for me, his unwavering attention to being happy and in making others happy. He introduced me to many of the finer things in life, like how to make a good martini, the art of diner parties, and, most importantly, my direction and mentorship with people. His manner in making people feel included and valuable was something that I will always aspire to.

He and his wife, Lorraine, ventured to our family's huge, annual "Thanksgiving Week" in the woods of New Hampshire. My nephews, who were just 13 and 10 and had no interest in anything other than Nintendo, were suddenly singing, laughing, and dancing with this stranger throughout the house. Bill has a way of making everyone at ease and happy.

Bill and I made many maps for Makivik with Inuit from both Nunavik and Nunatsiavut. Bill understood my limitations, I was not the best student, I was never going to write reports, but he saw in me the potential that he himself had which was making people around him be at ease. We worked at maps, we talked about the need to "reinvent the way maps are telling information" before GIS and the internet. We wanted to get across somehow what Inuit were telling us, putting it on maps that make a visual story within the lines of contours, lakes, and rivers. Bill had a way of unlocking the doors of one's mind.

We made plans to visit South Africa, Belize, and Kimmirut together, and we had discussions of the next dinner party, plans to dance throughout thanksgivings in New Hampshire, to continue the mantra of "good, clean, fun." But for me, life got in the way, and something Bill always told me to watch out for. Back in my office in Ottawa, I kept hearing about Bill's journeys to all those places. Somehow, life never got in his way!

When I visit Montreal, I make it a point to visit one of Bill's favorite restaurants, L'Express, a French bistro in the classic mold (zinc-topped bar, check-tile floor,

standards-laden menu.) The restaurant, like Bill, has been making an indelible imprint for decades. I get a smile on my face when the jar of cornichons hits the table at the beginning of a meal, I get into a discussion with the bartender, **Claude Masson**, who of course knows Bill and has many stories to share.

The last words I heard from Bill was on a recent visit he made here to Inuit Tapiriit Kanatami. We had just finished a meeting on maps, of course, more specifically the Inuit Land Use and Occupancy Project. His health was leaving him and cancer growing, but he was still smiling, laughing, telling stories. I helped him down to the front door. Leaving, he smiled and gave me a big hug. Bill was never one for saying "bye"; instead, he says: "Let's get together real soon for supper, I promise to make that happen." I am holding him to it.

KIYOSHI YAMAURA (1947–2019)

By William W. Fitzhugh

In the summer of 1974, I had the pleasure of spending a summer in Labrador with **Kiyoshi Yamaura**, who came to the Smithsonian on a fellowship to study harpoon heads in our Alaskan collection. Kiyoshi spent a year photographing and drawing toggling harpoon heads in Henry Collins' collections from St. Lawrence Island (Henry had retired but was still working), Wales, **James A. Ford's** and **Dennis Stanford's** from Barrow. Dennis had just joined the SI staff and was publishing his Ph.D. on the origin of the Thule culture and his chronology was based on harpoon typology.

Kiyoshi went on to join our Labrador field project in 1974. This was his first chance to meet Inuit in person and to excavate Dorset and Thule Eskimo culture sites. He brought his delicate Japanese digging instruments and worked diligently, but none of us found a single harpoon. (So, it goes in acidified Subarctic Labrador!) But we got to know Kiyoshi and his infectious sense of humor, distinctive laugh, and 'ah-so' manner of speaking. I'm not sure if it was Kiyoshi or **Tetsuya Amano**, who introduced us to Old Suntory whiskey, but we kept the empty bottle on board for years as we rode out storms on the seasoned Tunuyak, sharing the rare bottle of Newfoundland Screech rum in the light from a candle in that old Suntory bottle.

In 2014, my son **Ben Fitzhugh** and I participated in a conference on northern peoples in Osaka, Japan, organized by **Nobuhiro Kishigami**. Ben had been a youngster that Labrador summer with Kiyoshi but had gotten to know him again while researching Kuril Island archaeology, so we had a fine reunion. As we said goodbye, Kiyoshi gave me a flash drive containing all the Alaskan harpoon data behind the several papers



*Kiyoshi Yamaura (center) with colleagues.
Photo by William Fitzhugh*

he published from his fellowship year. On a previous visit, Kiyoshi introduced me to his favorite restaurants, and one night he put me up in the tiny apartment where he lived with his wife and children. I learned much that evening about how Japanese families manage in a few square meters of floor space.

Kiyoshi, a distinguished archaeology professor at Rikkyo University, passed away on June 27, 2019. **Tetsuya Amano**, who provided me with information, described Kiyoshi as “one of the outstanding researchers of toggle-head harpoons that enabled people to adapt and survive in high latitude areas.” His data on the Smithsonian harpoon heads can be found in the National Anthropological Archives and Arctic Studies Center files.

DONALD HOGARTH (1929–2019)

By William Fitzhugh

In February I had a note from **Mrs. Donald (Molly) Hogarth** informing me that Don passed away in December. Don and I exchanged Christmas greetings every year since we began collaborating on the Archaeology of the Frobisher Voyages project in 1990. I often visited the Hogarths in Ottawa, where Don served as research professor in the University of Ottawa’s Department of Earth Sciences since receiving his PhD in Geology from McGill in 1959. Previously (1952-1954), he was a Technical Officer with the Geological Survey of Canada, studying uranium deposits in Alberta and Saskatchewan.

Don was the quintessential ‘field geologist’ (actually, a mineralogist) who delighted in whacking rocks to see what they were made of, how they came to

be, and what they were good for. Don was also an historian of science. He became well-known in Canadian geological circles for his discovery of important minerals and deposits, and to historians for his knowledge of Canadian history and historical cartography. It was in the latter capacity that the Smithsonian’s Frobisher Project came to know him, for he knew more about the archival records of the Frobisher voyages of 1576-78 than anyone else.

Don was our project historian, researching Frobisher history, the members of the Frobisher expeditions, and—of course—analyzing Frobisher’s infamous ‘black ore’—the rock that when heated “glowed with a bright marquiset of gold”. Testing samples from the Frobisher ‘mines’, Hogarth found the ore had less gold than a handful of ordinary beach sand. Nevertheless, its assay in 1576 sparked enough excitement to launch two more Elizabethan expeditions before its true value was recognized in 1578, whereupon shiploads of ‘ore’ became wall-building material in the port of Dartmouth, England.

Don participated in our 1990 Frobisher expedition and was a valued member of our multi-disciplinary team. His enthusiasm for field work was unbounded, and his daily regimen, beginning with a pre-breakfast sea-bath, was inspirational but found no converts. In one of these plunges he had narrow escape from a menacing polar bear. Another time, his enthusiasm for breaking rocks failed to notice an errant thumb between the rock and his hammer, resulting in a medical emergency. Such matters were of no consequence to Don, a large brute whose geniality was loved by all. He ascribed his field success to his wife Molly, who packed his clothes interleaved with sweets. Thank you, Molly! And Don, for your contributions to Canadian geology, history, and Frobisher studies.

SERGEI STEPANOVITCH MINIAEV (1948–2020)

By William Honeychurch

Dr. Sergei Stepanovitch Miniaev, Senior Researcher at the Institute of History of the Material and Cultural Sciences, Russian Academy of Sciences, passed away on April 11, 2020, at the age of 72. Miniaev was a pioneer in Inner Asian archaeology, focused on the Xiongnu of South Siberia and Mongolia. He is best known for ground-breaking studies at the cemetery sites of Dyrestui, Tsaram, and Orgoiton, and the settlements of Ivolga and Durenny, together with **Anthony Davydova**. His work has been an inspiration for Xiongnu archaeologists.

2019 ASC STAFF PUBLICATIONS

Biddison, Dawn

2019 Material Traditions: Athabascan Moosehide Tanning and Sewing (4-disc DVD set.) *Directed and researched by Dawn Biddison. Filmed by Dawn Biddison and Hanna Craig.* Smithsonian Arctic Studies Center.

Crowell, Aron

2019 Examining Coastal Dynamics and Archaeological Site Evidence at a Drowned Cirque Basin Influenced by Earthquakes and Little Ice Age Glaciation. *Journal of Coastal Research* 35(4): 814–834. (Maio, Chris. V., Aron L. Crowell, Richard M. Sullivan, Richard M. Buzard, Maththew W. Whitley, Royce C. Bogardus, and Cary W. de Wit)

Fitzhugh, William W.

2019 Gateways 2018: More Evidence from Hart Chalet, Grand Plain, Belles Amours, and Grand Isle. *Provincial Archaeology Office 2018 Archaeology Review*, 17: 155–166. St. John's, Newfoundland. (Jacob Marchman, William Fitzhugh, and Mary Maisel)

2019 The Rigolet Archaeological Survey Project, 2018. *Provincial Archaeology Office 2018 Archaeology Review*, 17: 27–37. St. John's, Newfoundland. (Jamie Brake and William Fitzhugh)

2019 The Indigenous Watercraft of Northern Eurasia. *Vestnik–Bulletin of St. Petersburg University*, 64(2): 476–500. (Fitzhugh, William W., and Harri T. Luukkanen)

2019 Radiocarbon Dating and Cultural Dynamics across Mongolia's Early Pastoral Transition. *PLOS ONE*

14(11): Article-e0224241. (Taylor, William, Shevan Wilkin, Joshua Wright, Michael Dee, Myagmar Erdene, Julia Clark, Tumurbaatar Tuvshinjargal, Jamsranjav Bayarsaikhan, William Fitzhugh, and Nicole Boivin)

2019 The Gateways Project 2019: Excavations at Hart Chalet, Grand Isle, and Bonne Espérance. Arctic Studies Center, National Museum of Natural History, Smithsonian Institution. 134pp. Washington D.C. (William Fitzhugh, Igor Chechushkov, Michael Mlyniec, and Abigail Piegols.)

Krupnik, Igor

2019 At the Frontline or Very Close: Living with Climate Change on St. Lawrence Island, Alaska, 1999–2017. In *Climate and Culture: Multidisciplinary Perspectives on a Warming World*, edited by Giuseppe Feola, Hilary Geoghegan, and Alex Arnall, pp. 168–189. Cambridge, UK: Cambridge University Press.

2019 Arctic Riches Revealed in Swiss. *Museum Ethnographic Collections*. *Kunst & Kontext* 17 (June):23–33 (Gredig, Florian, Igor Krupnik, and Martin Schultz.)

2019 Siberian Yupik Names for Birds: What Can Bird Names Tell Us about Language and Knowledge Transitions? *Études/Inuit/Studies* 41(1-2):179–214.

2019 In Search of Changing Tradition (Making of the First Volume of the Handbook of North American Indians Series, the "Introduction"). *Etnografia*, 3 (5):193–212 (in Russian.)

2019 From Greenland to the Pacific Ocean: New International Program to Celebrate a Century of the 5th Thule Expedition, 1921-1924. *Arkheologiya Arktiki (Archaeology of the Arctic)* 6:178–188. (in Russian.)

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