

NOTES FROM THE DIRECTOR

By William W. Fitzhugh

It was a bit daunting to see ASC Newsletter #30 looming up on the horizon this past year! The round number makes one look back and take stock of all the ‘northern ground’ we have covered since the Arctic Studies Center was established in 1988. Each of our Newsletter issues have reported on some type of central activity that marked each of those years—not always so significant as the opening of the Alaska office in 1993 or the *Ainu* exhibit in 1999 or *Vikings* in 2000. This year the ASC has embarked on a new set of programs designed around the topic of “Arctic Resilience”, highlighted by the growing awareness of the changing Arctic and global climate and its huge implications for the future, as documented in the Sixth IPCC Climate Assessment Report and the US IARPC *Arctic Research Plan 2022–2026*.

This past year saw the tail-end of the COVID-19 epidemic and the slow reassembly of ASC and our Smithsonian colleagues into some semblance of the new normal. Fortunately, ASC and its associates have emerged from the pandemic without serious losses or health issues, and the impact on northern peoples has been less than initially feared.

On the other hand, the tragedy of Russia’s invasion of Ukraine has cast a pall on relations with our Russian colleagues and partner institutions, to say nothing about the huge loss of life and destruction. These collaborations over almost 30 years since the Crossroads exhibit era had become a major feature of the ASC operations.

Our emergence from covid isolation prompted a series of meetings to define a collective ASC program for the future around the concept ‘Arctic Resilience’. The result of the discussions was a research proposal to the NMNH titled “Arctic Resilience: Strategies, Sustainability, and Community Solutions” that explores historical and present-day strategies to increase resilience and sustainability across the Arctic. The proposal team includes ASC staff and associates,

Indigenous and academic partners from Alaska, Canada, and Greenland, and a broader circle of collaborators from the US, Denmark, France, UK, and Japan. As this project moves forward—later in 2023 we hope—we are also developing plans for an exhibition component featuring the sustainable use of Arctic natural and animal materials so well represented in our Smithsonian collection, perhaps in collaboration with the University of Pennsylvania Museum.

Several major highlights of 2022 need to be called out. One was the completion of **Igor Krupnik**’s 4-year term as chair of the Department of Anthropology. Igor’s service to the department straddled the COVID-19 pandemic and required a new form of

remote management. Overall, we adapted, and Igor’s curator- and department-wide meetings were models of transparency and respect. Undeterred by administrative duties, Igor completed the monumental task of editing the 931-page Vol. 1 “Introduction” of the *Handbook of North American Indians* published by the Smithsonian Scholarly Press. Igor’s work with **Aron Crowell** publishing *Arctic Crashes: People and Animals in the Changing North*, was awarded an NMNH Science Achievement prize. Another waypoint was the annual



Yup'ik mask 101596. Anima Mundi, Photo Vatican Museums, Images and Rights Department © Governorate of the Vatican City State—Directorate of the Vatican Museums

Ernest Burch Memorial Lecture given this year by **Michèle Hayeur-Smith**. Her lecture, “The Valkyries of Linen: Women’s Power and Cloth Production in the Viking North Atlantic” was delivered in the Q?rius Theater and enjoyed a large in-person and remote audience.

This year’s resumption of research activities included my return to fieldwork in Newfoundland and Quebec. I teamed up with **Brad Loewen** and **Saraí Barreiro-Argüelles** (University of Montreal), **Ben Fitzhugh** (University of Washington), and two Purdue University interns to investigate Quebec Inuit caribou procurement and stock identifications in northern Newfoundland, and with Saraí and **Francisco Rivera-Amaro** tested a small Basque whaling station located near an Inuit settlement in St. Paul River, Quebec. I also published two volumes documenting two decades of Mongolian deer stone studies.

While earth-bound pandemics kept most of us near home, **Stephen Loring** traveled to the stars—at least figuratively—as one of the curators working on a multi-faceted exploration of the night sky as part of an exhibition on the problems with light pollution and its consequences for life on earth. *Lights Out:*

Recovering the Night Sky opened at NMNH in March 2023. The ASC and NMAI were pleased to host a visiting delegation of Innu Chiefs and educators from the Innu communities of Natashquan (on the Quebec North Shore) and Mashteuiatsh (Lac Saint-Jean) in June. As always, such visits create an opportunity to explore aspects of cultural heritage and resilience made even more meaningful as the museum contemplates revision of its collections management policies and explores issues of ethical returns and shared stewardship.

Aron Crowell received a grant from the Smithsonian’s “Life on a Sustainable Planet” program for an archaeofaunal isotopic study with NOAA fisheries

scientist **Tom Helsner** that will yield a 6,000-year record of water temperatures in the Gulf of Alaska. He also collaborated with USGS marine ecologist Mayumi Arimitsu on “Climate Change and Pulse Migration: Intermittent Chugach Inuit Use of Glacial Fiords on the Kenai Coast, Alaska,” to be published in *Frontiers in Environmental Archaeology*. Crowell concluded his long-standing collaborative research program in Yakutat, Alaska by submitting a book manuscript for *Laaxaayik, Near the Glacier: The Cultural Ecology and Archaeology of Yakutat Fiord, Alaska* to Smithsonian Scholarly Press.

ASC Alaska was the co-recipient, with the NMNH Education office, of a two-year “Together We Thrive” education award from the Smithsonian’s Office of the Undersecretary for Education that will support development of culturally responsive science curricula for Alaska schools in collaboration with Alaska Native educators. **Nyché Andrew** joined the Alaska office for a research fellowship, sponsored by The CIRI Foundation, which will focus on interviews and fact finding about cultural STEAM programs in Alaska, many recently funded by grants from the US Department of Education.

Dawn Biddison

received an award from the Smithsonian Office of the Under Secretary for Education for collaboration on educational activities on Athabascan cultures. She received a grant from the Association of Tribal Archives, Libraries, and Museums for a project on natural dyes from Dena’ina lands, from the U.S. Embassy in Canada to bring a delegation of Alaska Native representatives to the Arctic Arts Summit, and from the NMAI Community Loans Program to develop a collaborative project with an Ahtna group.

PLEASE JOIN US AS WE CELEBRATE THREE DECADES OF ARCTIC STUDIES CENTER NEWSLETTERS!



Igor receives a leather-bound copy of v.1 of the Handbook of North American Indians, a gift from the Handbook and Anthropology staff. Photo by Phillip R. Lee

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ASC ANCHORAGE, ALASKA OFFICE

PRESERVING A CULTURAL HERITAGE SITE AT YAKUTAT, ALASKA*By Aron Crowell*

The Arctic Studies Center is assisting the Yakutat Tlingit Tribe (YTT) and the Sealaska Heritage Institute (SHI) of southeast Alaska to document and preserve a newly discovered archaeological site linked in oral tradition to the original Eyak residents of Yakutat Bay and to an Ahtna Raven clan, the Gineix Kwáan, that migrated there about five centuries ago (Fig. 1). House depressions and stone walls (possible fish weirs) found at Kwáashk' Héeni (Humpback Salmon Creek) in Humpback Cove are threatened by clear-cut logging conducted by the community's Alaska Native village corporation, leading to concern as well as disagreement among residents of the majority-Tlingit town (pop. 600) about what can be done to preserve the site.

The ASC is providing historical and scientific background to YTT and SHI about the Kwáashk' Héeni site in preparation for archaeological field investigations planned for June-July 2023 by the Alaska Office of History and Archaeology. ASC's supporting role stems from collaborative archaeological research conducted in the community since 2011, with results to be published this year by the Smithsonian Institution Scholarly Press (*Laaxaayik, Near the Glacier: The Cultural Ecology and Archaeology of Yakutat Fiord, Alaska*).

Kwáashk' Héeni in Oral Tradition

Anthropologist Frederica de Laguna, whose monumental ethnography *Under Mount St. Elias: The History and Culture of the Yakutat Tlingit* was published fifty years ago by the Smithsonian (De Laguna 1972), recorded local knowledge of an ancestral settlement at Kwáashk' Héeni (De Laguna et al. 1964) (Fig. 2). The reported site and surrounding land were claimed by Sealaska Corporation under the Alaska Native Claims Settlement Act, but the claim was denied when no supporting archaeological evidence could be found (Sealaska Corporation 1975).

According to oral tradition, the creek was the scene of a dispute over fishing rights between resident Eyak clans and members of the newly-arrived Gineix Kwáan, an Ahtna clan that migrated over the St. Elias Mountains from the Copper River to Yakutat about 500 years ago (Crowell 2022, 2023; De Laguna 1972; Swanton 1909; Thornton 2012). The Eyak discovered a Gineix Kwáan man fishing at the creek with a salmon harpoon, which they took away and broke because he was trespassing. The conflict over Kwáashk' (the Eyak word for 'pink or humpback salmon') Héeni (Tlingit

for 'stream') was resolved when the Eyak handed over the creek and a large amount of surrounding land to the Gineix Kwáan in exchange for valuable tináa, engraved ceremonial shields made of native copper that they had brought from the Copper River. According to the late Lena Farkas of Yakutat, the Eyak people said, "There is more copper in that canoe than this little creek is worth, so we're going to give you all of Tlaxatá (Yakutat Bay) (Crowell 2023).



Figure 1. A Tlinkit man (left) with a musket, wearing sealskin pants and a trade cloth shirt. A Copper River Ahtna man (right) with bow and arrows, dressed in caribou skin clothing with porcupine quill embroidery, 1880. From Ivan Petroff, Report on the Population, Industries, and Resources of Alaska, 1884

In honor of this event the Gineix Kwáan adopted a new clan name, Kwáashk'i Kwáan, meaning the "people of Kwaashk'". The Kwáashk'i Kwáan built the large village of Tlákwaan on nearby Knight Island and fished at Humpback Creek for pink and Coho salmon, Dolly Varden trout, and steelhead trout, judging from abundant fish bones preserved in the Tlákwaan midden. Yaa Xooda Keit, a renowned Kwáashk'i Kwáan clan leader who died in

about 1880, is said to have resided at Kwáashk' Héeni. The area is still important for fishing and for hunting harbor seals that gather at the mouth of the stream to feed during the salmon runs.

Dating and Description of the Kwáashk' Héeni Site

Although an on-the-ground survey of the Humpback Salmon Creek site (Alaska number YAK-014) has not yet been conducted, several inferences about its age and cultural features can be made. We know from oral tradition that establishment of the site preceded the Gineix Kwáan migration so it must be older than Tlákwaan, where the earliest calibrated radiocarbon

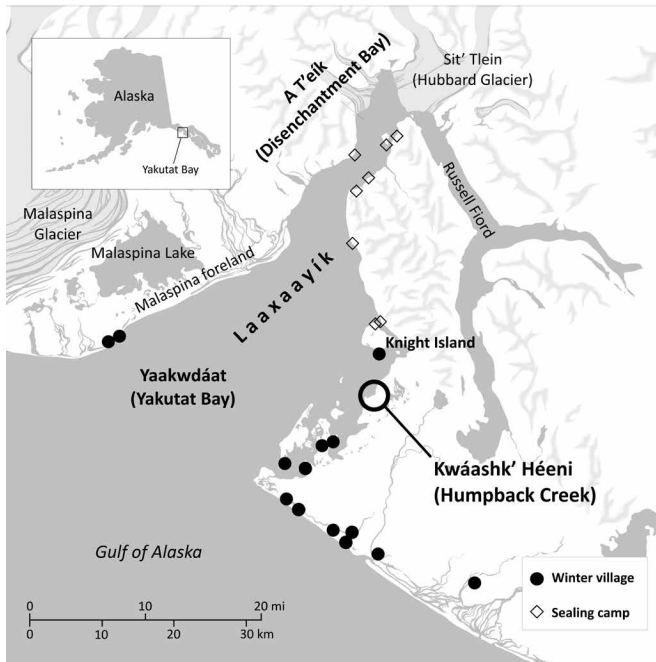


Figure 2. Map of Yakutat fiord showing locations of archaeological sites including winter villages, summer sealing camps, and Kwáashk' Héeni (YAK-014)

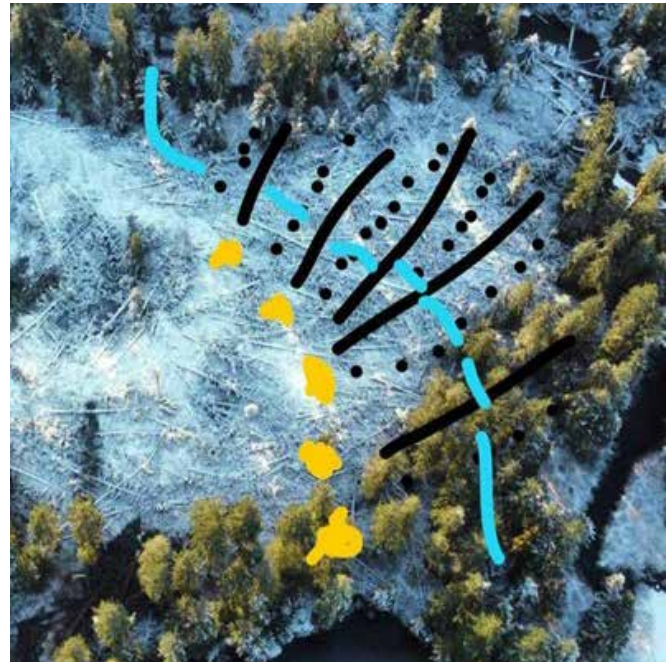


Figure 3. Aerial view of Kwáashk' Héeni showing clear-cut logging, house pits (yellow), rock walls (black lines), lines of boulders (black dots), and former stream channel (blue line). Drone photo and site interpretation courtesy of Defend Yakutat

dates are in the range of 1450 cal. CE (Crowell 2022). Glaciers that filled Yakutat fiord began retreating about 1200 CE and the Humpback Creek area could have been ice-free a century later, suggesting a maximum site age of about 700 years. House pits and midden layers could therefore contain stone, bone, and copper artifacts of the Eyak (800–1500 CE), Ahtna (1500–1700 CE), and Tlingit (1700–1900 CE) periods of Yakutat history as well as post-1780s Russian and American trade items including glass beads, ceramics, iron tools, and firearms.

Cultural features reported at the site and photographed from a drone by the organization Defend Yakutat include five probable house pits adjacent to a dry stream bed (Fig. 3). Five rock walls extend across the old stream, with parallel lines of evenly spaced boulders between the walls.

A detail from oral tradition—that the Gineix Kwáan man was caught fishing with a salmon harpoon—provides a likely explanation for the stone walls. Traditionally, salmon were harpooned as they schooled behind stone or wooden barricades, and in some places, box traps made of wooden stakes were constructed in rivers, their mouths flanked by bank-to-bank weirs. In other situations, tidal weirs were constructed at a stream mouth so that salmon passed over the top of a rock wall when the tide was high but were blocked behind it as the water receded (Emmons 1991; De

Laguna 1972). The walls at Kwáashk' Héeni are likely evidence for one of these methods.

Today the settlement is no longer adjacent to an active creek and is above tidal range, suggesting that uplift of the shoreline has occurred, shifting the site upward and inland and eventually altering the stream flow so that it abandoned its channel adjacent to the house pits. The great earthquakes of 1899 caused tectonic changes around Yakutat Bay but there was little or no vertical displacement at Humpback Cove; therefore, isostatic rebound—land slowly rising after the weight of glacial ice was removed—was the likely cause. Isostatic uplift at the nearby North Knight Island Village site (YAK-205) has been approximately 2 m since 1500 CE, so a similar or greater rise may have occurred over time at Kwáashk' Héeni (Crowell 2023). The rock weirs might have been built one after the other as relative sea level declined in order to keep the trap system at the proper level in relation to the tides, with the oldest walls now located farthest inland. The site could have been used until the stream changed course.

To summarize, the Kwáashk' Héeni site is potentially one of the most important cultural heritage resources in Yakutat Bay, with strong links to clan histories recounted in oral tradition. A remarkable set of features related to salmon harvesting appears to be preserved, and cultural layers at the site could provide a record of traditional lifeways and subsistence practices extending

back 700 years. Although the site has been clearcut, cultural features may still be largely intact and their preservation is of high importance to the Yakutat Tlingit Tribe and Sealaska Heritage Institute.

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BATUK'ENELYASHI: NATURAL DYES FROM DENA'INA LANDS

By Dawn Biddison

“I really open my eyes to ‘What can I use for dyes?’ I’m just fascinated with just what our Earth supplies us with.”—June Simeonoff Pardue

In 2022, the Alaska Native Heritage Center (ANHC) collaborated on a project with the Alaska office of the Arctic Studies Center (ASC-AK) to perpetuate and strengthen Alaska Native knowledge of natural dyes stewarded for generations. The *Batuk'enyashi*:



June Simeonoff Pardue teaching students about barks and leaves to harvest for dyes, and teaching with her granddaughter and apprentice Destinee Von Scheele. Photos by Richard Perry, Alaska Native Heritage Center, May 2022

Natural Dyes from Dena'ina Lands project included research and experimentation, a weeklong outdoor workshop led and attended by Alaska Native artists and students, and the production of educational videos and booklets. Master Artist **June Simeonoff Pardue** (Sugpiaq/Iñupiaq) was the lead instructor for the project, assisted by her granddaughter and apprentice **Destinee VonScheele** and by ASC-AK Museum Specialist **Dawn Biddison**. In addition to being June's student, Dawn acted as the project manager, researcher, documenter/writer, videographer and editor. Key ANHC staff assistance was provided by **Angie Demma**, Curator of Collections and Exhibits.

The *Batuk'enyashi* project was inspired by the work of renowned Yup'ik Elder and healer **Rita Pitka Blumenstein**, shared in the booklet *Earth Dyes/ Nuunam Qaralirkai: Dyes for Grass Made from Natural Materials*, edited by **Jan Steinbright** and published by the Institute of Alaska Native Arts (1984). June was a student in the 1983 grass dyeing workshop taught by Rita, which added to June's knowledge about natural dyes learned from her mother **Sophia Jane Johnson** (daughter of **Lucy Sagoonik** and **Daniel Bouchin**) and from her own research over many years as an artist and teacher.

Dawn began work for the project in March with online and library research, conversations with June, and planning meetings with Angie for the workshop on ANHC grounds. In early May, after leaf buds began to appear near June's home outside of Sutton, in-person research, experimentation, and documentation began. June taught about sustainable harvesting and making and using natural dyes. Working with Destinee and Dawn, they harvested leaves and bark and defrosted hand-picked berries for dye baths, and they experimented with dyeing materials, including bearded seal intestine and commercially tanned moosehide, and with techniques like using baking soda as a modifier. June also began teaching Dawn how to hand-tan salmon skin and giving her homework so that she could also be documented for the project.

After research and planning was completed, the project team held an outside workshop at ANHC in

cranberries) and black currants harvested and frozen in the fall, and devil's club and stinging nettle buds harvested earlier in the spring and frozen. Students dyed a wide variety of materials, some provided and some brought from home: birch bark, caribou hair, commercially tanned deer hide, commercially tanned Canadian moose hide, porcupine quill, rye grass, commercially tanned Atlantic salmon skin, sockeye salmon skin, bearded seal intestine, silk fabric, spruce root, and merino wool yarn. Documentation forms with information categories were provided to students for taking notes about the dyeing process and results and for attaching samples, to help them with their own future dyeing projects and to help them improve techniques while experimenting.

Over the course of the project, June shared cultural values, detailed instructions, experimentation techniques and recommendations, and artists



Left: Reviewing labeled dye baths and dyed samples from the project workshop. Photo by Sarah Owens, Alaska Native Heritage Center, May 2022. Right: A dye bath made from wild lingonberries, also called low-bush cranberries, harvested in Alaska with baking soda added as a modifier and with alum and cream of tartar added as mordant. The name of the berries is written in Sugpiaq and English by June (Simeonoff) Pardue. Photo by Dawn Biddison at June's home, April and May 2022

late May led by June and Destinee, where teaching and experimenting continued. There were four workstations set up for the instructors and twelve Alaska Native participants, an intergenerational group of artists and beginners. The long list of workshop supplies included aprons and gloves to protect clothing and hands; buckets, bags, pruning shears and peelers for harvesting; and for making and using dyes: pH paper, electric burners, pots, saucepans, potholders, spoons, tongs, strainers, bowls, mashers, measuring cups and spoons, alum as a mordant, cream of tartar as a mordant additive, baking soda and distilled white vinegar as modifiers, and paper towels. Students used a variety of plants to make dye baths and dyed a variety of materials. During the workshop, they harvested barks, leaves, dandelions and catkins. They also used defrosted blueberries, lingonberries (low-bush

participating in the workshop shared materials with others and their dyeing experiments. The collaborative work and documentation resulted in three educational resources made available on the project's [Smithsonian Learning Lab website](#). Conversation, experimentation and workshop video footage yielded fifteen tightly edited videos with extensive detailed notes as text in interstitial title cards and in lower-thirds. The video titles are: Introduction, Meet Instructor June Simeonoff Pardue, Meet Apprentice Destinee VonScheele, About Harvesting, Harvesting Berries, Harvesting from Trees, Harvesting from Other Plants, Dye Bath Recipes with Berries, Dyeing with Berries, Dye Bath Recipes with Tree Bark, Dyeing with Tree Bark, Dye Bath Recipes & Dyeing with Leaves, Dye Bath Recipe & Dyeing with Cottonwood Catkins, Dye Bath Recipes & Dyeing

with Other Plants, and Hand-Tanning Salmon Skin & Adding Dye. The videos are also available on the Smithsonian Arctic Studies Center Alaska [YouTube channel](#). The project website also provides a 46-page educational booklet that includes: a forward by June; an introduction by Angie; information on how to harvest plants for making dyes, general dyeing notes—covering general preparations, preparing materials for dyeing, dye bath additives, dye bath temperatures, dyeing materials, using a modifier, rinsing and drying materials, and supplies lists—and detailed dye bath recipes written by Dawn based on June’s teaching; project photos; and eight pages for notes by readers. A 48-page booklet provides scans of annotated samples of materials dyed during the workshop. The website also includes PDFs about Alaska plants.

In addition to the project website, outreach included statewide distribution of professionally printed booklets and DVD sets to Alaska cultural centers, museums, archives, libraries, Indigenous education and immersion schools, Alaska Native tribal organizations and workshop participants. Extensive email announcements were sent out, and during that week Dawn gave a presentation and materials to a University of Alaska Anchorage art class taught by June. Also, Dawn was contacted by staff at the UA Museum of the North at the University of Alaska Fairbanks to include the booklet and video links in a new teaching activities kit being developed for an interdisciplinary citizen science project that will reach K-12 teachers throughout Alaska. Future plans include a youth workshop led by June and Destinee at the 2023 Elders & Youth Conference, which is part of the Alaska Federation of Natives Convention.

“Essentially a teacher needs to let go and let the artist be the artist. Pass the knowledge along. Pass it down to the next generation. Pass it on to someone else. I think what I want to see in someone is that they can be as creative as they want. We have culture. Culture isn’t stagnant. It doesn’t stand still. And culture evolves.”—June Simeonoff Pardue

The *Batuk’enyashy* project was made possible through supporters of the Arctic Studies Center in Alaska and support from the Alaska Native Heritage Center, and it was made possible in part by a grant from the National Endowment for the Humanities: Sustaining Humanities through the American Rescue Plan in partnership with the Association of Tribal Archives, Libraries, and Museums. Note: “Any views, findings, conclusions, or recommendations expressed in this publication do not necessarily represent those of the Association of Tribal Archives, Libraries, and Museums or the National Endowment for the Humanities.”

DEVELOPING CONNECTIONS: ALASKA NATIVES AT THE CANADIAN ARCTIC ARTS SUMMIT

By Dawn Biddison

In January of 2022, the Inuit Art Foundation (IAF) asked the ASC Alaska office to collaborate again, this time on developing a program and grant for Alaska Native participation in the Arctic Arts Summit (AAS) at Whitehorse in June and for Alaska representation on the Summit website. **Dawn Biddison** worked closely with IAF Executive Director **Alysa Procida** to write a grant for the US Embassy in Canada’s Public Diplomacy grant program and it was awarded.

Alaska Native participants were researched and recommended by Dawn, and delegates were selected by IAF and AAS staff based on their engagement in cultural activism, arts practice(s) and their current/recent job involvement with Alaska Native Heritage. Participants included: **Darling Anderson** (Unangaġ), Cultural Heritage Coordinator, Aleutian Pribilof



Alaska delegates to the Arctic Arts Summit, (right to left) Da-ka-xeen Mehner, Melissa Shaginoff, Darling Anderson, Dawn Biddison, Nadia Jackinsky-Sethi, Sonya Kelliher-Combs and Emily Johnson (with partner IV Castellanos)

Islands Association; **Stephen Qacung Blanchett** (Yup’ik), Art Education Director for Juneau Arts and Humanities Council; **Sven Haakanson** (Sugpiaq), Curator of Native American Anthropology, Burke Museum; **Nadia Jackinsky-Sethi** (Sugpiaq), Program Officer, The CIRI Foundation; **Emily Johnson** (Yup’ik), Choreographer/Director, Catalyst Dance and advisor to the First Nations Performing Arts Network; **Princess Daazhraii** Johnson (Gwich’in Athabascan), board member of Native Movement and NDN Collective; **Sonya Kelliher-Combs** (Iñupiaq, Koyukon Athabascan), former board member of the Institute of American Indian and Alaska Native Arts, Alaska Native Arts Foundation, and Alaska State Council on the Arts; **Da-ka-xeen Mehner** (Tlingit/N’ishga), Associate Professor of Native Arts and Director of the Native Arts Center, University of Alaska Fairbanks; **Melissa Shaginoff** (Athna Athabascan/Paiute), Alaska Native Place; and **Tatiana Ticknor** (Tlingit/Dena’ina/

Deg Hit'an Athabascan), Unguwat Resilience & Connections Program Coordinator, Alaska Native Heritage Center.

At the Summit, delegates participated in sessions with presenters from across the Arctic covering a broad range of topics: Centering Climate: International Collaboration, Cultural leadership, and Youth; Voices from the Land: Artists Speak; Duodji and Other Northern Craft Practices; Arctic Art in the Public: Transformative Platforms for Indigenous Voices; Cultural Revitalization: The Continuity of Our Traditional Practices; Artistic Creation through Research: Looking Back, Looking Forward; Waking Words: Revitalizing Languages Across the North; New Directions in Arts Education throughout the Arctic; Curatorial Practices around the Circumpolar World; and Land Defenders: Artists Confronting Arctic Colonialism.

In addition to the June gathering, Alaska Natives and their work were represented on the Summit website. Dawn researched, developed and edited the Alaska "Spotlight" collection titled ["Sharing Our Voices: Alaska Native Arts and Heritage"](#) that presents eighteen posts. Nadia, a Summit delegate, contributed the posts ["What is Alaska Native Museum Sovereignty?"](#) and ["ARTShops: An Alaska Native Arts Leadership Program."](#) Dawn also contributed seven posts, including a profile of Yup'ik artist [Amber Webb](#), who advocates for missing and murdered Indigenous women and girls through art. Another post features the exhibition ["Conversations of Ourselves"](#) curated by Summit delegate Melissa Shaginoff. Dawn co-wrote four additional posts with writer [Richard Perry](#) (Yup'ik/Gwich'in Athabascan), including ["Empowerment Through Culture: The Alaska Native Heritage Center"](#) and ["Renewals: Urban Unanga Culture Camp."](#)

AHTNA COLLECTION ACCESS AND COMMUNITY OUTREACH: A PARTNERSHIP WITH NMAI

By Dawn Biddison

In the late winter/spring of 2022, **Dawn Biddison** was asked by **Kelly McHugh**, Head of Conservation for the National Museum of the American Indian (NMAI) and member of the Smithsonian's Shared Stewardship and Ethical Returns implementation group, to submit a proposal for their Margaret A. Cargill Philanthropies (MACP) program to facilitate collections-based collaboration with Alaska Natives. A large-scale, multi-group plan was submitted, which was revised down due to time constraints. The resulting ten-month project



Melissa Shaginoff, Agnes Denny, Dimi Macheras, Aaron Leggett and Jessica Denny discuss a Koyukon dog pack (161630.000) from the NMAI collection in the Living Our Cultures exhibition at the Anchorage Museum, November 2022. Photo by Dawn Biddison



Agnes Denny and Melissa Shaginoff admire the crenelated bottom edge of an honor coat (E153754-0) likely made by an Ahtna skin sewer, based on specific design elements recognized by Agnes. Museum Support Center, NMNH, January 2023. Photo by Dawn Biddison

brings together an inter-generational group of Ahtna Athabascans to work on collections-based research and to develop a community project based on Ahtna interests for the benefit of their communities.

The Ahtna project group is **Kiana Carlson** (Mitchell Hamline School of Law student; Denali National Park and Preserve cultural resources department), **Agnes Denny** (Chief of Chistochina; Tribal Administrator, Cheesh'na Tribal Council), **Jessica Denny** (Board of Directors, Ahtna Inc.; Adjunct faculty, Alaska Natives Studies, University of Alaska.), **Dimi Macheras** (artist) and **Melissa Shaginoff** (cultural advocate, artist). In addition to Dawn and Kelly, the Smithsonian participants include interdepartmental staff. Project team members from NMAI are **Michele Austin**



Ahtna researchers (seated) Agnes Denny, Jessica Denny, Dimi Macheras, Melissa Shaginoff and Kiana Carlson with Athabascan heritage items from the NMAI collection, and with (standing) NMNH staff Dawn Biddison and NMAI staff Emma Smith, Kelly McHugh, Lavinia Lee and Michele Austin Dennehy. Cultural Resources Center, January 2023. Photo by Katherine Fogdon, NMAI

Dennehy (Conservation volunteer), **Elizabeth Holford** (Conservator), **Lavinia Lee** (Conservation fellow), **Emma Noffsinger** (Program Specialist), **Jen Shannon** (Program Manager, Curator), **Nathan Sowry** (Reference Archivist), NMAI project lead **Tessa Shultz** (Collections Care & Stewardship, Community Loans) and **Emma Smith** (Conservation fellow). The project has received assistance from National Museum of Natural History (NMNH) staff **David Rosenthal** (Collections Manager) and **Carrie Beauchamp** (Collections Data Manager), and from National Anthropological Archives staff **Celia Emmelhainz** (Director) and **Daisy Njoku** (Media Archivist). Assistance has also been provided by Anchorage Museum staff: **Aaron Leggett** (Curator of Alaska History and Indigenous Cultures; President, Native village of Eklutna), **Heather McClain** (Photo Archivist), **Janet Northey** (Collections Manager), **Monica Shah** (Deputy Director, Conservation & Collections) and **Julie Varee** (Community Outreach Archivist).

The Athna group began monthly online meetings with Dawn in the fall of 2022. The group began reviewing notebooks containing research and documentation Dawn provided on navigating national and international online collections research to find both Ahtna heritage items and archival photographs, including institutional contacts. The group met online with NMAI and NMNH staff for introductions to their work and to the resources their departments offer. The group then focused on research and documentation with NMNH and NMAI collections, including items in the Living Our Cultures exhibition at the Anchorage Museum (AM). This work was in preparation for a week in November of in-

person conversations, collections study and planning meetings in Anchorage, which also included time with Ahtna items in the AM collections. The group then shifted to gaining experience with virtual collections research in December, focused on Ahtna heritage items selected NMAI collections, which also contributed to preparations for a week of in-person research at NMAI and NMNH in January of 2023. Their experiences in Suitland inspired the Ahtna group to organize an online and in-person inter-village gathering of Ahtna people conducting cultural heritage work on behalf of their communities. The Anchorage “Ahtna Language and Culture Gathering” was hosted by the **Cheesh’na Tribal Council** in February and featured a presentation “Ahtna & Museums: Process & Experience.”

Throughout their online and in-person meetings, the Ahtna group worked with Dawn to discuss, document, and take action on recognizing and meeting community protocols, interests, needs and goals. Recommendations will be provided to NMAI, NMNH and NAA staff about specific heritage items, and in general, regarding cultural protocols and appropriate access. Across time together, the group developed ideas for multi-faceted community outcomes to be completed in May that will include an outreach gift based on museum and community research and include comprehensive research documentation and museum resources to serve future Ahtna community-based work. In addition, there will be a presentation on the Smithsonian’s Learning Lab website that shares project stories and research, selected as culturally appropriate for the general public by the Ahtna group. The project will conclude with an in-person gathering at Chistochina in May to bring gifts and museum resources for the community.

UPDATE ON ALASKA BOARDING SCHOOL RESEARCH

By Ken Pratt

The “Federal Indian Boarding School Initiative” issued by Secretary Deb Haaland of the US Department of the Interior (DOI) in June 2021 promised a “comprehensive records assessment” intended to “identify all boarding schools that participated in the [Indian boarding school] Program and the students enrolled in each, along with each student’s Tribal affiliation.” These objectives underscore the initiative’s potential to assist Native American tribes seeking to repatriate the remains of former students who died and were buried at boarding schools. The initiative’s official period of concern is 1819 to 1969—but for Alaska its effective beginning date cannot be earlier than 1867, the year the former Russian territory (“Russian America”) was sold to the US.

In July 2021, Ken Pratt was designated the Bureau of Indian Affairs (BIA), Alaska Region, contact person for matters related to the initiative and immediately began researching and compiling information about former Alaska boarding schools. The main goal was to identify all boarding schools that had operated in Alaska, but various factors complicated that task, like the DOI's initial failure to define the term "boarding school." This left it unclear if "boarding homes," orphanages, hospitals, or sanitariums—some of which housed Alaska Native children and received funding support from the Federal government—could appropriately be defined as boarding schools. In fact, quite a few boarding schools began as orphanages established in response to the impacts of epidemic diseases (e.g., measles/influenza [1899–1900], influenza [1918–1919]). Another impediment to identifying "boarding" schools is that many Alaska schools were run by churches, the associated records of which are housed in archives that can be difficult to access. Nonetheless, my research to date has revealed about 55 boarding schools in Alaska between 1867 and 1969. In contrast, DOI's May 2022 "Federal Indian Boarding School Initiative Investigative Report" (p. 83) listed only 21 boarding schools in Alaska. Even though the DOI report focused on the entire US, not just Alaska, the large discrepancy between the two counts of Alaska boarding schools is significant.

The question of how many cemeteries were associated with boarding schools in Alaska is also important. Many Alaska boarding school/orphanage sites have associated cemeteries, and some are known to include mass graves—nearly all of which resulted from infectious diseases that caused high mortalities at remote sites and left too few able-bodied people to bury the dead. In other words, mass burials were sometimes the only reasonable way to deal with the remains of the deceased.

Cemeteries were not necessarily present at every Alaska boarding school but, generally, the longer a school operated the greater the chance that it had an associated cemetery. Even when evidence indicates a cemetery was present, however, its location relative

to the school may not be specified; there also is no guarantee that a cemetery that once existed still exists today (e.g., some such cemeteries have been lost to erosion). Epidemics known to have caused deaths at or very near former boarding schools suggest those sites likely have associated cemeteries, but written records may be silent on that point.

In most cases, verifying the presence (or continued existence) of a cemetery will require on-site work, which poses serious problems in Alaska. First, there is a high probability that all former Alaska boarding school sites are now in private ownership, requiring landowner permission to conduct any on-site work. Second, the majority of Alaska boarding schools were in remote locations inaccessible by road, so the costs of reaching the sites will be high. Finally, even in best-case scenarios, the task of determining precise burial locations for individual students at boarding school cemeteries will be difficult—sometimes impossible—as well as very costly. It will require systematic archival research (mainly at facilities outside of Alaska), and probably supplemental ground-penetrating radar surveys. This begs the question

of who will pay for all the necessary work? *The DOI boarding school initiative is unfunded, and it also is not law. Consequently, implementation of the initiative is in doubt, and political changes could easily cause it to be abandoned.*

In Alaska, the DOI is not being relied upon to implement the initiative. The effort to take action on that front has been led by the Alaska Native Heritage Center: its staff has convened a major boarding school meeting, developed multiple related projects, and is immersed in invaluable research at church archives. But Alaska Native tribes, tribal consortia, corporations, and other organizations have also launched boarding school research and documentation projects. The BIA Alaska Region has funded many of these projects and hopes to continue supporting such efforts in the future.

Akulurak was the site of a Catholic mission/orphanage and boarding school that operated from 1894 to 1951. It is located along Akulurak Pass near the south mouth of the Yukon River. The mission buildings were later dismantled. A cemetery was also present. Shallow



July 2017. ANCSA 14(h)(1) Collection, Calista region digital photographs (Akulurak, P1010046), Bureau of Indian Affairs, Anchorage. Photo is by Ken Pratt

permafrost underlies the site, so virtually all graves were surface burials. Permafrost freezing and thawing actions explain the tilting grave crosses and fenced grave enclosures seen in this image. Many of the estimated 70 graves now visible post-date the mission's closure; numerous earlier graves are surely also present but have long since sunken beneath the ground, leaving no surface evidence.

TOGETHER WE THRIVE: CULTURALLY RESPONSIVE SUSTAINING SCIENCE EDUCATION IN WASHINGTON, D.C. AND ALASKA

By Margaret Benson and Aron Crowell

Measures of academic achievement in the sciences are low for African American and American Indian middle and secondary students across the country, and high school graduation rates for Black students in Washington DC (67%) and Alaska Native students in Alaska (68%) are about 20 points below the national average. Rural and urban students from these groups are systematically underserved by schools that often lack learning resources and teaching methods that can engage students in science by connecting to their own unique cultures and knowledge traditions. In response to this need, staff across several Smithsonian units have partnered on a research and applied education project, "Culturally Responsive Sustaining Science Education" (CRSSE).

CRSSE is a two-year project supported by a \$528,000 Together We Thrive grant from the Smithsonian's Office of the Undersecretary for Education that aims to produce culturally responsive science curricula and experiences for K-12 students in Alaska and Washington, DC. The research objective is to develop and evaluate a framework for collaboration and co-creation with teachers and other stakeholders that can serve as model for Smithsonian educational partnerships with communities.

Culturally responsive and culturally sustaining teaching practices center the knowledge of traditionally marginalized communities in classroom instruction and result in students being empowered as lifelong learners and critical thinkers (Will and Najarro 2022). Implementation of culturally responsive pedagogies has shown promise in classrooms around the country (NYCDE 2022), including projects originating at the Smithsonian. The approach also serves to address the "invisibility and erasure of Native Americans in all aspects of modern US society" (Cultural Survival 2018) and the "lack of education about Black people, their lives, societal contributions, and their histories in the American Narrative" (Armstrong 2022).



The CRSSE project will enhance experiences and resources at the Smithsonian project partner sites, like Q?rius, to offer more culturally responsive ways to engage students in examining and exploring natural history science



Students in Ketchikan, Alaska, try out large cedar whistles they made with Tsimshian instructor John Hudson (second from left in back). Hollowing out the interior chambers of the whistles taught principles of sound production. CRSSE highlights the Indigenous knowledge and science behind traditional designs. Photo by Dawn Biddison

Building on established relationships, outreach programs, and museum and digital spaces such as Learning Lab and Q?rius, the project team will collaborate with and learn from innovative community educators who are already "doing the work" in this vital area. Through the CRSSE project, we will identify what resources teachers need and what would be relevant to their students, connecting them to Smithsonian collections and resources that they can incorporate into their practice. We have observed that the natural sciences and humanities and the big questions posed in those fields, from global warming, evolution, and biodiversity to ways of knowing and understanding humanity's relationship to local places and the planetary biome, are often overlooked in standard K-12 curricula. We hope that these themes can emerge as students are empowered to explore their worlds informed by cultural knowledge as well as scientific modes of learning and explanation.

The Smithsonian team brings unique perspectives and experience to this work. The core project group includes staff from the education office at the National Museum of Natural History (**Margaret Benson** and **Nicole Webster**), the Arctic Studies

Center in Anchorage, Alaska (**Aron Crowell** and **Dawn**



Anchorage School District middle school students meet Athabascan master snowshoe builder **George Albert** at the Arctic Studies Center. Students prepared for the visit by studying how the webbed shoes spread a person's weight to keep them from sinking into the snow, an example of culturally responsive science education.

Photo by Wayde Carroll



The CRSE project aims to increase students' engagement with conservation and natural history sciences by enhancing K-12 programs to be more culturally responsive, including digital programs, virtual field trips, and online resources

Biddison), the NMNH Department of Anthropology's Recovering Voices Program (**Gwyneira Isaac** and **Laura Sharp**), the NMNH Repatriation Office (**Dorothy Lippert**), and the National Zoo and Conservation Biology Institute (**Erika Novak**). As Smithsonian Secretary Lonnie Bunch said, the "great strength of museums [brings] people of different backgrounds, experiences, and beliefs together... Museums create informal communities of learning, helping people recognize how much we share, despite our differences, and how much those differences can help us grow." This concept of the Smithsonian's community role will guide our work with a wide variety of education partners.

In Alaska, we have begun by undertaking a landscape survey of pilot CRSE programs around the state, many newly launched with Alaska Native Education grants from the U.S. Department of Education. Through this process, we will learn from influential practitioners, identify partners, understand needs, and form working groups for collaboration. Some organizations such as Sealaska Heritage Institute are long-standing ASC education partners; in other instances, such as Upward Bound/Teaching Through Technology, Knik Tribe, Inc., the Yukon-Koyukuk School District, and Tyonek Tribal Conservation District, we are reaching out to make new connections. With the support of a professional development fellowship from The CIRI Foundation, Alaska Native Yale graduate student **Nyché Andrew** is working with ASC to conduct information gathering interviews with project leaders at these organizations.

The early, necessary work of a landscape review and outreach is underway in Washington, D.C. as well, supported in part by a Dumbarton Oaks Fellow, **Idabelle Paterson**. We are connecting with other D.C.-based museums, educational organizations, universities, and individuals to learn more about the needs, opportunities, and barriers relating to the implementation of science instruction, culturally responsive teaching, and the intersection of the two. This work will inform the second phase of our grant, which will be to provide support for culturally responsive-sustaining teacher training and co-creation of science education resources. The onboarding of an outreach coordinator and an evaluator in the coming weeks will kick outreach and learning into high gear in the coming months.

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NEWS

**FROM NORTHWEST TO SOUTHEAST
(ALASKA): A NEW HOME AND JOB***By Amy Phillips-Chan*

Late October rain darkened the skies as our five-year-old son perched on boxes of books as we drove to Nome Harbor. When the metal Conex offices of Alaska Marine Lines appeared at the top of the hill, I let out a sigh of relief that we were in time for the last barge of the season out of Nome. Saying goodbye carries a poignancy that speaks to departures. For us, it wasn't the things we were leaving behind, it was the friends with whom we had raised our children, our Elder neighbors, the library, coffee shop, and post office that seemed more like extensions of our home than places of business.

During my tenure as Director of the Carrie M. McLain Memorial Museum from 2015 to 2022, I was honored and humbled to play a small part in continuing the legacy of caring for and sharing the rich culture and history of the Bering Strait region. The Smithsonian Arctic Studies Center (ASC) played a pivotal role in the sinuous path that took our family to Nome, a tight-knit and resourceful community of 3,500 located on the traditional homeland of the Inupiat. I first learned about plans for a new museum in Nome in 2014 while visiting ivory carvers for a collaborative publication in partnership with the ASC. This book was eventually published in 2021 as *Our Stories Etched in Ivory / Qulip'yugut Iksiaqtuumaruat Tuugaami: The Smithsonian Collections of Engraved Drill Bows with Stories from the Arctic*, ed. Amy Phillips-Chan, *Contributions to Circumpolar Anthropology*, Volume 10, Arctic Studies Center, Washington, D.C.

A brief conversation in 2014 with Nome city administration turned into a job, a relocation, and a whirlwind couple of years as we raced to complete a collections inventory and move to a new facility in the Kegoayah Kozga Public Library and Katirvik Cultural Center, completed in 2016. Over 70 community

members and organization partners joined us to bring historical treasures out of the storerooms and into an engaging space that communicates the vitality of the region. This exhibit journey and its many participants are retraced in the article "Bering Strait Narratives and Collaborative Processes of Exhibit Development in Nome, Alaska" by Amy Phillips-Chan in *Alaska Journal of Anthropology*, 2020, Volume 18(1): 23-50. Historical photographs in the exhibit, as well as additional images from the Bering Strait region, are shared in *NOME* (2019) by Amy Phillips-Chan, Arcadia Publishing, Charleston, SC.



Alaska State Libraries, Archives & Museums team members gather for a photograph in the atrium of the Andrew P. Kashevaroff Building in Juneau in 2022

2017 passed in a blur as the Museum pursued its second phase of exhibit development, while at home we welcomed the arrival of our son. A grand reopening followed in the fall with traditional dancing, singing, and a community feast. Eager to share our new space with partners and community members, we hosted the Museums Alaska–Alaska Historical Society Conference in 2018 and the Alaska Anthropological Association Annual Meeting in 2019. The conferences brought almost 300 community members to Nome for hands-on workshops, sessions, film screenings, and excursions out onto the tundra and sea. The Museum and AkAA were honored to partner with the ASC during the 2019 conference by offering a keynote lecture

by Dr. **Igor Krupnik** and a series of events featuring international speakers for a centennial celebration of the Fifth Thule Expedition, whose papers were published in *Alaska Journal of Anthropology*, 2021, Volume 19(1-2).

Arrival of the COVID-19 virus in Alaska in March 2020 prompted closure of the museum. Over the next several months, staff organized collections, worked on writing projects, and explored opportunities to remain engaged with the community. In September 2020, we launched an oral history initiative to document community pandemic experiences. A few months later, we began a Bering Strait artist initiative to

create works relating to the pandemic. Over the next two years, community members, artists, and poets created “Stronger Together” in which artworks were paired with an historic review of pandemics in the Bering Strait region, later to be published as *Stronger Together: Bering Strait Communities Respond to the COVID-19 Pandemic*, ed. Amy Phillips-Chan, University of Alaska Press, Fairbanks, AK (in press).

The Institute of Museum and Library Services (IMLS) supported organizations during the pandemic through CARES Act Grants for Museums and Libraries. The museum was fortunate to receive funding through this program to launch an interactive eMuseum to increase access to cultural resources. During the summer of 2022, the museum was wrapping up object photography and preparing work with culture and language specialists for the IMLS project when I learned of the retirement of the prior Director of the Alaska State Libraries, Archives, and Museums (ASLAM) in Juneau.

In November 2022, I joined the Alaska State Libraries, Archives, & Museums as Director working with an exceptional team on the traditional homeland of the Áak’w Kwáan. ASLAM is a division of the Alaska Department of Education and Early Development (DEED). Our division supports approximately 50 full-time staff in Juneau and Sitka. Facilities include the **Andrew P. Kashevraoff** Building in Juneau completed in 2016 and home to the Alaska State Library, Alaska State Archives, and Alaska State Museum, the Sheldon Jackson Museum in Sitka whose original concrete structure was built in 1895, and the Stratton Library, also in Sitka, constructed in 1974.

ASLAM promotes and coordinates library services in Alaska, preserves government records, and collects, cares for, and exhibits the diverse cultural and natural heritage of our state. We offer visitors an opportunity to browse publications related to Alaska history, research Alaskan newspapers on microfilm, or grab the latest issue of the *Juneau Empire* and settle into a comfortable chair in the Richard Foster Reading Room. Core services include reference and research assistance on Alaskan subjects for state agencies, schools, and the general public.

We also offer grants and educational support to libraries across the state for operations, technology, and early childhood literacy.

The Alaska State Archives first opened to the public in 1972 and today includes a public research room, collections storage area, and archival processing spaces. The State Archives preserves and provides access to government records that document Alaska

history, offers digital imaging and microfilm services, and assists researchers looking for information on topics from territorial records and the office of the governor to commerce and fish and game. The Alaska State Museum was established in 1900 when an Act of Congress created the Historical Library and Museum for the District of Alaska. The museum and its collection squeezed into various spaces until 1967 when the state constructed a dedicated building in honor of the centennial purchase of Alaska from Russia. Today, the Alaska State Museum includes interactive museum galleries, a state-of-the-art conservation lab, exhibit design and fabrication shop, and a collections storage area that offers community members hands-on access to almost 30,000 historical and cultural objects. Special exhibits are developed in collaboration with Alaskan artists and educational organizations, including the recent shows *Midnight at the Fireworks Stand* (2022) by **Alison Bremner Naxshageit** and *Visceral: Verity, Legacy, Identity* (2023) featuring the work of artist and curator **Sonya Kelliher-Combs**.

The Sheldon Jackson Museum was founded in 1888 to house an invaluable collection of Alaska Native heritage items that were gathered by the missionary and General Agent of Education for Alaska, Rev. Dr. **Sheldon Jackson**. The State of Alaska purchased the museum from Sheldon Jackson College in 1985. The museum cares for around 6,500 objects that are closely studied by local youth and Alaska Native communities. The Alaska Native Artist Residency program began in 1988 and offers artists an opportunity to study the collection and discuss their culture and work with visitors.

In my role as Director of ASLAM I am fortunate to work with team members across the division and help facilitate the educational programs and services that our organization offers. I am also honored to be continuing the important work of fostering relationships with communities and organizations to advance new understandings of the deep history and rich cultural heritage of Alaska.

Sincere appreciation to **Bill Fitzhugh** for inviting me to share my experiences in Nome and the recent transition to Juneau. I discovered tracing the past years through titles of projects and publications offered a helpful guide to those treasured years with the people of the Bering Strait region. We are looking forward to upcoming projects featuring artists from the Bering Strait region. One of the truly special aspects of Alaska is that despite its huge geography we are truly an interconnected community thankful to call this place home.

DAWN BIDDISON RECEIVES SMITHSONIAN RESEARCH PRIZE

1 December 2022

Dear Ms. Biddison,

Each year, the Smithsonian Congress of Scholars works with me to present the Secretary's Research Prizes, which recognize and promote excellence in scholarship across the Smithsonian. These pan-Institutional awards reflect the diversity of research disciplines at the Smithsonian.



Dawn Biddison

I am pleased to inform you that you have been selected to receive one of these awards for your work, *Voices from Cedar*. The Congress of Scholars organized the nomination review committee under the direction of Dr. **Josh T. Franco** of the Archives of American Art and Dr. **Rossman Irwin** of the National Air and Space Museum. From those nominated, the review committee forwarded your project for consideration. I will announce the awards soon in a Smithsonian-wide announcement. We will celebrate this award and your accomplishments at a ceremony on the morning of Wednesday, December 14 from 8:30 to 11:00 a.m. in the National Museum of Asian Art's Meyer Auditorium. I am delighted to award you with this prize in recognition of your contributions to the mission of the Smithsonian Institution, and I congratulate you on your work.

Sincerely, **Lonnie Bunch**, Secretary, Smithsonian Institution



John Hudson displays cedar rattles

[Editor's note: Dawn is the Museum Specialist at the Alaska ASC Office. Since 2002, she has worked with Alaska Native Elders, scholars, culture-bearers, and artists on collaborative heritage projects, which began with museum exhibition and website work and continues with community-based documentation and revitalization residencies, workshops, and public programs. Examples of this work are available online at the Smithsonian Learning Lab website [Smithsonian Arctic Studies Center in Alaska](#) and on [YouTube at Smithsonian Arctic Studies Center Alaska channel](#).]

THE COVID-19 PANDEMIC IN UUMMANNAQ GREENLAND

By Rene Kristensen

During the COVID-19 pandemic from 2020 to 2022 in Greenland was handled by travel restrictions, lockdowns, local quarantine measures, and vaccination programs. After the pandemic's uncontrolled spread across Europe and Denmark in early 2020 the Government of Greenland quickly restricted all travel in and out of Greenland, and those restrictions lasted for two years for all non-vital travel. Only people with important tasks and vital functions such as doctors, nurses, special engineers, construction workers, and police were permitted to enter Greenland. The population was advised not to travel out of Greenland, and for many months it was not even possible to buy a ticket. To travel, you had to have taskforce approval before you could buy a ticket.

The number of flights to and from Greenland was limited, and they were limited to about half capacity. Strict quarantine rules and testing applied to all travelers entering Greenland. Travel within Greenland was regulated in accordance with local outbreaks, and in these cases the town or settlement was quarantined until the virus was under control. In Uummannaq during the first year we only had one case of COVID-19, which was introduced by a nurse. She was quarantined and no further spread occurred.

Greenland is particularly vulnerable to pandemics due to its infrastructure and geographical spread of the population in small settlements with limited resources for treatment and medical care. The Greenland Health Authority's overall strategy was to shield Greenland against the virus for as long as possible and at the same time run vaccination programs to boost general immunity. I believe this strategy was a great success. Greenland did not suffer many deaths directly linked to the Covid-19. Most of the population had two or three vaccinations by the time the virus spread widely

across Greenland in the fall of 2021 and winter of 2022. The vaccination program was conducted with help from the Danish Navy, which during the summer months of 2021, sailed around Greenland with a team of doctors and nurses to reach all the small settlements.

In Uummannaq, vaccination was conducted from the Medical Center. We did not experience the spread of Covid-19 locally before Christmas 2021 and during the first months of 2022. Almost everyone got sick, but because of the successful vaccination program most people only had mild or moderate symptoms. Only a few were hospitalized.

The lockdown of Greenland had a huge impact on tourism—almost no tourists came for two years, and most tourist operators had to close their businesses. Some developed activities for locals, and others took advantage of the break to upgrade and renovate. Restaurants and other businesses associated with tourism suffered as well. The fishing industry, which is the main source of income in Greenland, faced a decreased demand due to closed restaurants in most of the world. Stocks of fish and shrimp piled up in freezer houses and the price of fish products went down. All businesses affected by the Covid-19 were compensated by the Government. Besides the impact on tourism and the fishing, the situation mostly had an impact on those who often travel abroad and of course the ability for the population to go on vacation outside Greenland. Daily life locally in a town like Uummannaq was not much affected. We did not have many rules and restrictions. The supplies of food and other necessities were more or less unchanged.

The Health Authorities campaigned for good hygiene standards, maintaining social distance, and not getting together with too many people for indoor activities. Mandatory wearing of facial masks was only imposed a few times and for short periods. The only place where facial masks were mandatory was on domestic and international flights and in airports and hospitals.

Recovery from the two years of isolation has from my perspective been rapid and positive. During 2022 travel returned to normal, tourism boomed in summer 2022, and the fishing industry recovered. There is no doubt that the pandemic had a huge economic impact. But compared to many other countries, my experience is that we were spared the long-term unpleasant restrictions in our daily lives suffered by many people all over the world, and we did not suffer many deaths.

WILLIAM HONEYCHURCH RECEIVES MONGOLIAN POLAR STAR AWARD

Excerpted from Yale News

In November, Yale archaeologist **William Honeychurch** received the Order of the Polar Star from Mongolia—the highest civilian honor the country’s government bestows on foreign citizens. In accepting the award, Honeychurch joined esteemed company: **Barack Obama, John McCain, and Hillary Clinton** are among the other Americans to receive the honor. Honeychurch first visited Mongolia as a Peace Corps volunteer in 1991, when the country



William Honeychurch

was transitioning to democracy. He began forging relationships with Mongolian archaeologists, teaching them English as they taught him about their work. He returned after earning his doctorate and has worked in the country ever since, focusing his research on ancient nomadic political organization in East and Central Asia. Honeychurch spoke with Yale News about the challenges of performing archaeological fieldwork over vast spaces—hundreds of square kilometers—and his anthropological approach to archaeology.

Congratulations on the honor. What does it mean to you? William Honeychurch: “I’m deeply grateful. I see it as recognition of my research in Mongolia and my efforts to create valuable information about what life was like in Mongolia’s ancient nomadic societies to raise the country’s profile. Mongolia is a thriving democracy that borders Russia and China, yet it receives very little attention globally. I’m very thankful to my partners and colleagues in Mongolia who have supported me all these years. As a scientist, I examine the country’s history and prehistory. I also strive to forge relationships between Yale and the National University of Mongolia. Every summer, I take Yale students to Mongolia to do fieldwork, introducing them directly to the country’s continuing pastoral nomadic tradition. And I bring Mongolian students to Yale

to study. I think this award presents an opportunity to strengthen these ties and find new ways for Yale scholars to work with counterparts in Mongolia.”

What types of research questions do you explore?

Honeychurch: “I study the Xiongnu, who formed the first major Mongolian state under the leadership of Shanyu Modun beginning in about the third century B.C. It was a pastoral nomadic state, which for anthropologists is a difficult concept to understand: How was it that mobile herders created a state? It’s an issue that archaeologists refer to as ‘emergent complexity,’ which concerns how societies become differentiated,



Mongolian and American students excavate a 3,000-year-old Slab Burial culture tomb

unequal, and specialized. So, an interesting question is, how does that work with horse nomads? If mobility is built into your culture, that means your economy, politics, and urban models are different from sedentary models of those same things. I study the idea that a mobile culture will format its entire society differently than a more sedentary culture.”

Yale archaeologists take an anthropological approach to their work. How does that differ from other approaches? Honeychurch: “In many places, archaeology is treated as a primarily historical discipline. When you study archaeology that way, you basically restrict yourself to supplementing the historical record of one location or culture. In approaching my work from an anthropological perspective, I’m not just interested in augmenting Mongolia’s historical record, though I find that record fascinating. I’m broadly interested in human beings. I’m studying pastoral nomadic state formation in Mongolia to inform our understanding of how states arose in different places by different processes such as in Egypt, Mesopotamia, and Peru. What are the differences between these various processes and trajectories for state formation? What do those differences say about humanity? When my Mongol students come to Yale and

learn this fairly new approach, they return home and share it with colleagues and students there. It’s helping archaeologists in Mongolia to understand their country’s prehistory in a new way. That’s powerful.”

ARKHAIOS CULTURAL HERITAGE AND ARCHAEOLOGY FILM FESTIVAL

By Pegi Jodry

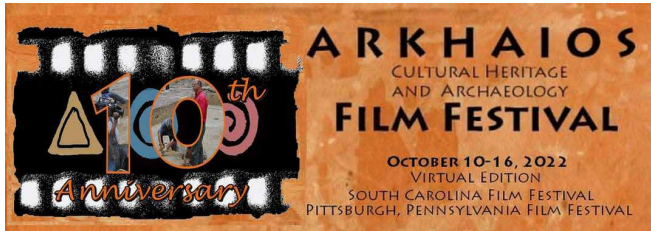
In October, during Archaeology Heritage Month, the *Arkhaios Cultural Heritage and Archaeology Film Festival* celebrated its 10th anniversary. Festival founder and director, **Jean F. Guilleux**, an avocational archaeologist, created this popular educational three-day event, which is one of only two film festivals devoted exclusively to archaeology and culture. In his native Europe, there are more than a dozen. The goal of *Arkhaios* is to freely showcase the discoveries of past cultures gained through ethnological and archaeological research to a diverse public audience via documentary films.

Arkhaios is sponsored by the South Carolina Institute of Archaeology and Anthropology, the Departments of Anthropology at the University of South Carolina, the University of Pittsburgh, the Society of Pennsylvania Archaeology, the Explorer’s Club, and the Friends of Arkhaios. Events in 2022 included a Virtual Edition in addition to in-person screening at the University of Pittsburgh’s Frick Fine Arts Building and the Florence County Museum in South Carolina. Twenty-four films from fifteen countries presented aspects of eighteen cultures.

Of these, fourteen films were selected for official juried competition. Smithsonian Research Associate, **Pegi Jodry**, served as the 2022 Jury President, working alongside archaeologists, visual anthropologists, and filmmakers: **Karl Heider**, **Kimberley Cavanagh**, **Robert Cliff**, and **Jim Spirek**.

Kromdraai, *Children from the Cradle of Humankind* by Director **Cedric Robion** (France) won the Award for Best Archaeology film in which Jose Braga leads an interdisciplinary team that unearthed the remains of two children, one Human and the other the oldest Paranthropus ever found, while carefully piecing together the complex geomorphological record of these discoveries.

Award for the Best Underwater Film was given to Director **Marie Thiry** (France) for *The Mystery of Cosquer Cave*. Only accessible through an underwater entrance, Cosquer Cave is adorned with paleolithic paintings nearly 27,000 years old that are threatened by a rising Mediterranean Sea. A team of divers,



archaeologists, hydrologists, digitization specialists, and artists work together to recreate a magnificent replica of this cave, which can now be enjoyed by a non-diving public, thus creating a permanent record of ancient artwork that may be erased by sea water in the years ahead.

The Festival Grand Prize, as well as the Award for Best Cultural Heritage Film, was given to *Oath of Cyriac* by Director **Olivier Bourgeois** (Andorra). This docudrama chronicles the true story of a small group of archaeologists, museum curators, and administrators at the National Museum of Aleppo, who heroically struggled to preserve, rehouse, and thrice transport more than 50,000 antiquities during the recent Syrian conflict. The museum personnel, who literally placed their lives on the line to save the museum collections, tell their own moving stories in a series of interviews, re-enactments, and historic newsreel footage. The film ends on a hopeful note, as objects are returned to renovated museum exhibits in 2017. Recent earthquake devastation in Aleppo (February 2023) highlights the sobering power of this film and ongoing difficulties at the National Museum.

Upon completion of Jury President responsibilities, Pegi Jodry was invited to join the Arkhaios Board of Directors in 2023. Her Paleoindian research activities this year included an in-person keynote address delivered at the First Floridian Conference on Cultural Heritage, Natural Resources and Land Stewardship of Apalachee, Chesapeake and Galveston Bays at the Historic Monticello Opera House, March 4th-5th. This was a wonderful opportunity to highlight the protection of world-class late Pleistocene cultural resources along the Aucilla River threatened by commercial land development, meanwhile connecting face-to-face (following COVID-19 restrictions) with friends and colleagues, old and new.

MY TRAVELS FROM THE ARCTIC STUDIES CENTER TO THE ASIAN PACIFIC AMERICAN CENTER

By *Andrea Kim Neighbors*

In 2003, I started my first museum internship at the Arctic Studies Center under the mentorship of **William Fitzhugh**. I had just returned to the United States after

a semester abroad in Oulu, Finland, where I spent six months learning about contemporary issues in the circumpolar north and the history and cultures of Sámi and Roma peoples. The semester abroad was my first time in the north, and I quickly fell in love with the climate, cultures, and people that enrich the region. I was an eager cultural anthropology student and wanted to seek out additional learning opportunities outside of the classroom, which is how I learned about the Arctic Studies Center. As an intern, I was excited to learn more about the Center's everyday work and research. Being there both demystified museum work while also introducing me to new understandings of how anthropology is practiced in a professional setting outside of academia. As a first-generation college student learning about the field while gaining new skills in operating in a professional environment, the internship was an invaluable experience that I reflect on regularly.



*Andrea in Mongolia in 2004.
Photo by J. Bayarsaikhan*

I had the great privilege of returning to ASC in the summer of 2004 to join an archaeological research trip to Mongolia with Bill and a team of American and Mongolian archaeologists and botanists. It was truly a once-in-a-lifetime opportunity. Being in Ulaanbaatar, Murun, and other beautiful sites around and between these cities and towns helped me see, feel, and experience Mongolia's ancient and modern

connections to Central Asia, East Asia, and Russia. The applied experience of being on an archaeological dig for the first time and learning directly from leading archaeology researchers expanded my understanding of Mongolia's connections to the circumpolar north. I remember, very clearly, the awe-inspiring experience of standing next to deer stones, with beautifully intricate carvings of deer swirling around the column to the top of the stone, which sometimes had representations of human faces on top. Being at these sites while meeting Mongolian herders, cooks, drivers, and families along the way, exchanging smiles and laughs without a shared language, was a humbling point of connection. I recall one personal memory that speaks to my roots—one of our drivers named **Zagdaa** asked our translator, **Adiya**, why I was rude and not speaking Mongolian to them. Adiya told me Zagdaa thought I was Mongolian. I'll never forget his husky laugh, his pranks, the time he



*Zagdaa, one of our 2004 Mongolian drivers.
Photo by J. J. Bayarsaikhan*

stopped driving to pull over to a goat herd and have me hold a baby goat for a picture, and how tearful I was to say goodbye to him.

Mongolia was personally impactful, and the internship experience there pivoted my academic interests. I am a mixed-race Korean American woman. As a child, Mongolia was always in family discussions about our ancestral roots. As a fifth grader, I recall having to

complete a flag showing our ancestry for homework. I had half of the flag indicating the American flag, while the other half was a mix of the South Korean and Mongolian flags.

From ASC, I entered the University of Alaska Fairbanks as a graduate student in cultural anthropology. The internship at ASC was just the beginning of additional research I wanted to pursue in the north and Asia. My research questions took me to the Russian Far East, specifically Vladivostok and Khabarovsk, where I wanted to learn more about international adoption practices between Russian and the United States, moratoriums on adoptions, and how global politics were affecting concepts of childhood. This research stemmed from the internship in Mongolia—seeing houseless children in the streets of Ulaanbaatar, juxtaposed with children living in rural areas with families, which made me want to learn more about children's experiences in post-Soviet regions in Asia.

The research in the Russian Far East was a challenging experience. Listening to social workers, orphaned children, and caretakers talk about the traumas and politics of adoption, and having children cared for in society, made me realize I am not the right person to be doing this work. It was not my lived experience. This research needed the right expertise and cultural connections to more justly and responsibly care for the topic. While I gained new skills and insights that have stayed with me, I needed to move on from this research. So, I ended my academic anthropology career and took time to process what I wanted to do, which was not easy but necessary. I wanted to return to museums in a public education capacity, which is how I returned to the Smithsonian but to a different unit, the Asian Pacific American Center (APAC).

I came to APAC from The Wing Luke Museum of the Asian Pacific American Experience in Seattle, Washington, and The Phillips Collection, in Washington, D.C. I served as a museum educator for eight years at these two museums, leading in-gallery learning experiences for K-12 students, facilitating teacher workshops, and practicing object-based learning daily. I learned what teachers need and want from museums and how schools and museums can be essential partners in building a learning community that involves community members, caregivers, and more. I am honored to bring these experiences and my rich experiences from ASC to APAC, where I've served as Head of Education for the last six years. At APAC, I am honored to work with K-12 teachers across the United States and the Pacific, and Asian American, Native Hawaiian, and Pacific Islander (AANHPI)

artists, community leaders, scholars, and more, to bring AANHPI to learners everywhere. People often ask me who we consider Asian American, and it's a long, often complex answer. We consider Asian Americans as people from East Asian, South Asian, Southeast Asian, West Asian, and Central Asian diasporas. We do not have strong connections to Central Asian communities in the United States. I've learned that the Mongolian American community in the D.C. Metro Area has grown over the years. I'm hopeful that we may build a connection with them soon.

Returning to the Smithsonian has been a wonderful "full-circle" moment, one twenty years in the making. While my work now differs from how I started in this field of museum work, with many great and challenging lessons learned in between, I am incredibly proud that my career started at the Smithsonian and the Arctic Studies Center.

Editor's note: Andrea is Head of Education at the Asian Pacific American Center, Smithsonian Institution.

MEET THE SMITHSONIAN SCIENTIST STUDYING THE MONGOLIAN DEER STONES

By Emma Saaty: In: SMITHSONIAN VOICES, March 9th, 2023

The Director of the Smithsonian's Arctic Studies Center, **William Fitzhugh**, has spent over 20 years conducting fieldwork in Mongolia and researching Bronze Age art and archaeology.

Miles into the remote Mongolian steppe, there is nothing but grass as far as the eye can see. Off in the distance, a series of stone pillars rise above the bare landscape. Morning sunlight illuminates the faces of ancestors and images of deer carved in the stone thousands of years ago, ancient leaders left to watch over their land until the end of time.

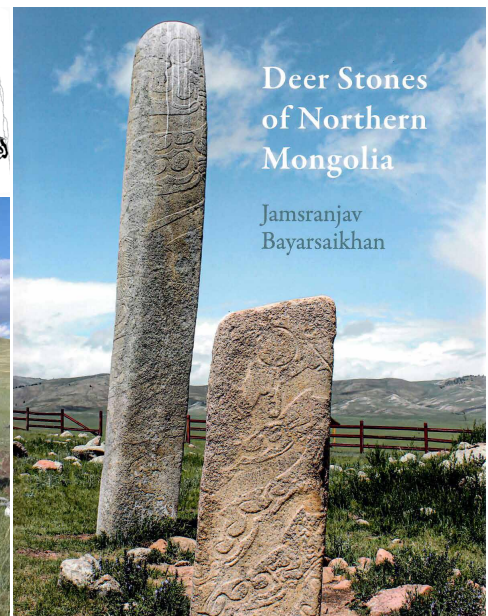
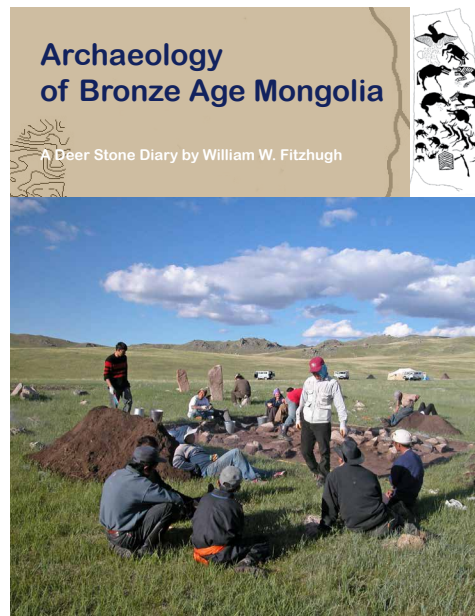
Mongolian deer stones, named for the striking deer carvings that cover their narrow frames, were first described by Russian researchers in the late 1800s. Created by an ancient people during Mongolia's Bronze Age between 1400–700 BC, most early archaeologists did not know what to make of the



William Fitzhugh inspecting a rock art tableau featuring the Mongolian deer seen on deer stones

mysterious monuments. That is, until William Fitzhugh, the director of the Arctic Studies Center at the National Museum of Natural History, and his Mongolian partner, **Jamsranjav Bayarsaikhan**, began applying new archaeological methods to an old problem. For the past two decades, Fitzhugh and Bayarsaikhan have been diligently searching the Mongolian countryside for clues to help them understand this ancient culture and connect it to the traditions of living populations today. Their research on the stones has helped create a visual biography of the people who created them so long ago.

This year, Fitzhugh and Bayarsaikhan are releasing the results of their decades of work. Their books, *Deer Stones of Northern Mongolia* and *Archaeology of Bronze Age Mongolia: A Deer Stone Diary*, as well as a feature in *Current World Archaeology* magazine





A deer stone from Uushigiin Uvor and a graphic by Bayarsaikhan of another stone

chronicle their experiences among the deer stones. To learn more about Fitzhugh's rich research career and the captivating stories from his time spent on the Mongolian steppe, join us for our newest installment of Meet a SI-entist.

You created the Smithsonian's Arctic Studies Center in 1988. What drove you to highlight Arctic cultures and why are they significant areas of study?

My main question as a curator of Arctic cultures has always been 'how do we connect the collections that we have with the living people in the north today?' When I first arrived at the Smithsonian, we had these beautiful collections from Alaska that had never been studied at length. Through the Arctic Studies Center, we have been able to take those collections out, put them on exhibit, send them to museums around the country, and get them back to Alaska. The most important accomplishment of my career was creating the Arctic Studies Center's Alaska office and being able to reconnect Indigenous people with the Smithsonian and their ancestors' collections. I feel very blessed, having arrived at the museum at a time when so many things were possible; we could do exhibits, publishing, travel, and exchanges. This has been a kind of "golden age" for the Smithsonian.

Ancient Mongolian cultures have remained mysterious for centuries. What about this region piqued your interest and led you to uncover some of these ancient secrets?

Discovering the origins of the northern peoples, who we used to call 'Eskimos,' has been central to my research since the beginning. I spent most of my early career studying the ancient Inuit cultures in Labrador and wondering about their connections to Asia. Unfortunately, there is a huge area in Northeast Siberia that's not well known, and hardly studied archaeologically. Sea levels have risen, destroying many of the sites, and most cultural records have been swamped or eroded away. So, we had a huge gap in knowledge. We knew that people

had been living in the Mongolian steppe forever. By the time of the early Eskimos 3,000 years ago, Mongolia was already a nomadic pastoral society with horses. But we really didn't know much else, so after failing to find early Eskimo cultures along the Arctic coast of Russia, I turned to Mongolia as the place where we might find clues to the foundation of Eskimo culture and art. One of the pieces of that puzzle seemed to be lurking within the images of deer with their wave-like antlers on deer stones.

How has your recent research transformed your understanding of what the deer stones represent and why they are significant in understanding ancient Mongolian Culture?

Deer imagery is widespread across Bronze Age Mongolia, and likely represented a major deity linking the earth and the sky, watching over the people. Our research is exciting because there are many indicators that suggest these deer stones were representations of real people who lived thousands of years ago instead of mythological ancestors or deities. Arranged in orderly lines, the stones display earrings, necklaces, and belts with hanging tools. The images of deer with large scrolling antlers and the heads and beaks of birds that covering the stones' torsos probably mirror tattoos on the bodies of those they represented. This art gives us a good idea of the ideology and belief systems of these communities. The deer-bird image was likely a master spirit deity that protected the people against things that might hurt them. They were using tattoos in the same way someone might wear a Christian cross around his or her neck.

Every deer stone image is individualistic, and the stones are lined up in north-south rows that seem to depict chronological successions of clan leaders. If these interpretations are accurate, the deer stones can help us construct a 'biographical history' of specific lineages that lived in Bronze Age Mongolia. Pooling the information from the nearly 1,500 deer stones known in Mongolia could tell us a great deal about this elusive society.

You have spent over 20 years conducting fieldwork in the Mongolian steppe. What is daily life like in the field?

Our surveys followed in the footsteps of Vitali Volkov, who published a book on deer stones in 1981. We would pack our gear and set off driving, usually starting in northern Mongolia and working our way south from site to site. In early July we would encounter the Mongolian national holiday, Naadam, famous for its horse races, and our students often took part in the wrestling matches or archery contests that went on in the villages. We enjoyed getting to know Mongolian people everywhere, including the students who joined our teams. Mongolians are great storytellers

and singers, and we discovered we were no match for their cultural abilities. We did what we could, but “Oh, Susanna” does not measure up to their repertoire. One day we had had two Mongolian youngsters come by while we were making a cast of a deer stone using blue separating latex. This wide-eyed little girl, around 8-years-old, asked ‘why are you painting our old stone men?’ She didn't like what she was seeing! We explained that the blue rubber would peel off and everything would be returned to normal. “You'll have your stone man back.”

Congratulations on the books that you and Jamsranjav Bayarsaikhan have recently published! What do you hope that people will take away from your research?

I am thrilled that Bayaraa's book analyzing deer stone art is out and mine has just been published! My book describes the deer stone sites and the ritual and mortuary systems that guided the ancient Mongolians. I also include passages from my diaries that place our deer stone research together with the lives of the Mongolian herders and families whom we met along the way. We have made a big contribution to the heritage of Mongolia and have given faces to its 3,000-year-old leaders. We now have visual biographies of those ancient people. And as another benefit, we've trained a lot of kids to become archaeologists, to be curious and respectful of their heritage. It has been a great pleasure to help give Mongolians a past that they didn't know much about and reconnect them with their ancestors through their old stone men.

TRAINING MONGOLIAN ARCHAEOLOGISTS

By Jamsranjav Bayarsaikhan

The ‘Mongolian Archaeology Project: Surveying the Steppes’ ([MAPSS](#)) introduces technological tools to Mongolian archaeologists and researchers. Over twenty years have passed since I first participated in an archaeological dig with Dr. **William Fitzhugh** of the Smithsonian Institution Museum of Natural History's Arctic Research Center. My years working with the Smithsonian team afforded me great advances in archaeological methodology, and I continue to work on research projects locally as well as internationally. Since 2021, I have been at the Max Planck Institute of Geoanthropology in Germany coordinating MAPSS to record and document Mongolian sites using remote sensing and other data systems. The basis of cultural heritage preservation, protection, and management starts with registration of archaeological sites. About 33,000 archaeological monuments have been discovered and registered in the western and northern

regions of Mongolia through remote sensing, and thousands of database records have been enriched by digitization.

In March 2023 the MAPSS project conducted a for Mongolian workshop for archaeologists and researchers on remote sensing and registration methods. Many tools and software necessary for archaeological survey, excavation, and registration were taught, including QGIS, Arches database platform, online satellite imagery, Google Earth, drone flight mapping, and image processing, dGPS, and total station use. As a result, Mongolian archaeologists will be able to deploy these tools to digitally document their research and perform analyses. These modern tools are not yet included in the archeological curriculum of Mongolian universities. Recently this type of information and knowledge became essential for archaeologists. In addition, the course demonstrated the need to train students preparing to work in archeology and cultural heritage. More than 90% of the workshop participants had never used these tools.

While implementing digital technologies within MAPSS, I discovered more applications for the students every day. The course was organized to share with other Mongolian researchers what I have learned during the past two years. A big ‘thank you’ to the Arcadia Foundation and the directors of the MPIG, especially MAPSS project P.I. Professor Nicole Boivin, co-P.I. Professor **Michael Petragalia**, and the MAPSS project team that taught the course: Dr. **Mike Fisher**, **Dovydas Jurkenas**, **Mina Jambajantsan**, and Dr. **Nichole Sheldrick**.



MAPSS training workshop at the Chinggis Khan National Museum. Photo by J. Bayarsaikhan

RESEARCH

2022 ERNEST S. BURCH MEMORIAL LECTURE: “THE VALKYRIES OF LINEN”: CLOTH PRODUCTION AND WOMEN’S POWER IN THE NORTH ATLANTIC*By Michèle Hayeur Smith*

In Old Norse literature and poetry, a kenning is a compound expression that possesses a metaphorical meaning. The kenning “Valkyries of Linen” is used to refer to the term “woman” in the Old Norse poem *Rekstefja* (Stavnef 2012). This kenning is particularly relevant to the present paper and reveals something of the Vikings’ attitudes towards women and their roles in textile production. Women, viewed frequently as inferior to men and playing a subordinate role to them in Norse/Viking Age societies, often enjoyed far more power in certain areas of life.

In my 2022 Tiger Burch Lecture, I explored the roles of Viking Age (c. AD 750–1050) women through the analysis of archaeological textiles from both Iceland and Greenland to reveal their significant contributions to the survival and well-being of their communities, located as they were on the fringe of western Europe, confronting a harsh and changing climate while developing new regional identities and new economic and political structures. Through textile production, women supported Icelandic communities by making money and, in Norse Greenland, helped to mediate the hardships of the Little Ice Age. The physical process of textile production was an exclusively female activity, but it appears that it may also have been deeply connected with the world of magic, which provided women with a voice and a source of power in a world largely dominated by men.

Popular Views of Viking Women

Depictions of Viking women in both popular culture and academia are confusing and often contradictory. Viking women have been perceived as subservient, quiet, and traditional within a male-centered world, where they were engaged in a litany of domestic chores throughout their “stages of life” without “being allowed” to excel or fulfill themselves as individuals. Scholars have catered to age-old stereotypes of women as caregivers, based on sociobiological theories that situate women’s positions in society as natural mothers and guardians of the domestic realm “within-doors.” This approach has dominated interpretations of women in Viking studies from early scholarship until the last few years. Alongside these academic interpretations, however, the media has focused on sexualized visions of Viking women, as popularized in comics and paperback covers of the 1970s. However, following the

recent (2017) re-interpretation of an individual interred in burial B.J. 581, an elaborate warrior’s grave at the Swedish proto-urban site of Birka, as a woman based on aDNA analyses (Hedenstierna-Jonson et al., 2014), we have now added “shield maiden” imagery to the repertoire of popular culture representations.

The image of the strong (domestic) woman of the Viking Age has also prevailed in certain contexts. The concept of the “strong woman”—headstrong, powerful, running their own farms, and more emancipated than their European contemporaries—emerged from the medieval Icelandic Saga narratives about the settlers of Iceland. However, the medieval vision of Viking Age “strong women” has also been challenged by both Auður Magnúsdóttir (2008:41) and Helgi Þórlaksson (1981), who suggested that the authors of these narratives were powerful 13th century men, and that the Viking Age women they described as being “strong” more often than not presided over social disasters rather than successes. These “strong women” could, therefore, amount to nothing more than literary conventions intended to convince Christian women that such behavior came to no good end.

The Mythological Constructs of Women and Textile Work

My own research across the North Atlantic on archaeological textiles and gender has opened my eyes to a deeper understanding of the roles of women in these societies. While the society was, in essence, patriarchal, women seem to have found ways to strategize and negotiate social and cultural relationships to acquire power that they would otherwise have lacked in legal or formal settings.



Figure 1. Representation of the Darraðarljóð, from Njáls Saga. Illustration by Greg Rebis

In the Viking colonies of the North Atlantic and mainland Scandinavia, textile production was a distinctly female activity and appeared to be linked to specific female fertility deities. Through this association, textile work seems to have given women the upper hand and a mechanism they could use to negotiate power, as textile work symbolized the control of fate and power over life and death and was connected to a type of female magic called seiðr. Seiðr was the official form of magic practiced by women and taught to women originally (and also to Óðin, the head of the Norse pantheon) by the goddess Freyja. Freyja herself not only practiced and taught seiðr but was also the goddess of textile work. Flax was worked on Friday, Freyja's day, and another of Freyja's names, Hörn, is thought to refer to the term horr or flax (Ellis Davidson 1990:116).

Seiðr had its own specialized practitioners known as völr, who were connected with Freyja, and their tools, among other things, reflect the deep connection between textiles and women's magic. The primary symbol of the völr was a seiðr staff—a symbolic iron distaff that was far too heavy to use for spinning wool or flax but was an appropriate symbol of female power and the spinning of fate. Some scholars have argued that the etymology of the word seiðr itself—meaning cord, snare, or halter—is compatible with seiðr as an ecstatic form of sorcery because there is a notion of “sending forth” and “drawing back”: in the case of sorcery, the sorcerer's mind is sent to the spirit world, often in the shape of a spun thread or rope and then pulled back with it (Heide 2007). These semantic metaphors in material culture and language demonstrate that seiðr was a form of female witchcraft linked to spinning, the production of thread, and weaving, all of which were considered distinctly female domestic chores (Price 2002; Heide 2007). As a result men rarely engaged in seiðr, for fear it would lead to allegations of homosexuality, and it contained a lot of ergi, defined by Meulengracht Sørensen (1983) as a quality that made men perverse in sexual matters, cowardly and effeminate, and—of relevance here—versed in witchcraft.

In Norse mythology and in the descriptions of the völr (female magical practitioners), textiles connected female magic with life, death, and specifically the control of fate. One of the most obvious of these connections is immortalized through popular images of the Nornir, three supernatural women who spun the fates of men under the World Tree. The Nornir—Urðr, Verðandi, and Skuld—are generally interpreted as the present, past, and future, and are credited with creating the destinies of men before their birth (Norrman 2008). These may not have been the only Nornir, as Norse mythology describes additional good and bad Nornir

(ibid.). According to Snorri Sturluson's 13th century Prose Edda—one of our two primary sources on Norse mythology—bad lives were attributable to the evil Nornir, whereas good Nornir shaped the lives of the lucky (ibid.). Wayland Barber (1994) suggested that the connections between thread, spinning, and fate, while not unique to the Norse world, stem from the action of women creating thread out of nowhere, just as babies are created from nowhere and with possible links between mother and a child and the giving of life through the umbilical cord (Wayland Barber 1995; Norrman 2008). The connection between the creation of life and of thread is clear in English – the term “lifespan” contains the word “spin,” initially meaning to draw out (Norrman 2008), though no such equivalent was noted in Old Norse.

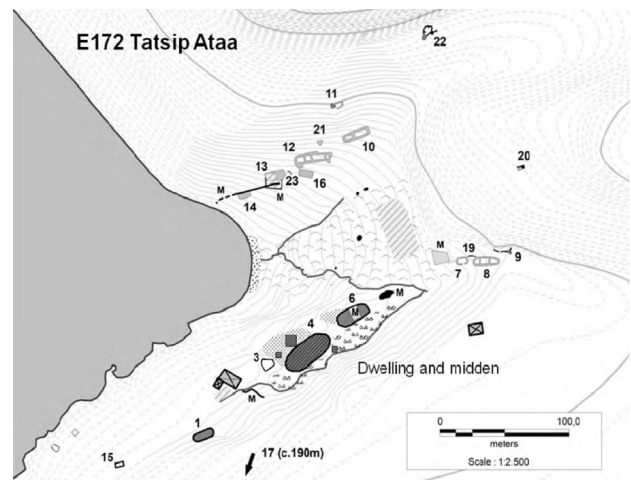


Figure 2. E172 Site plan with the excavation areas marked in red. Areas A-C are the largest red square NW of str. 4. Area D is the smaller square NW of Str. 4, and Area E is the small square SE of Str.4. Plan by C.K. Madsen

From the official magic of seiðr, I believe that female magic trickled down to the domestic realm in a form of “little magic” and this fusion of concepts helped provide a formidable strategy that women could deploy when dealing with the patriarchal system around them. Further, female magic in all of its expressions and connections to textile production (see Hayeur Smith 2020) brought the potential danger of magic into bargaining and negotiations of power, even at the household level, and instilled a level of fear in male householders.

Mythological sources and vignettes contained in the sagas suggest that the actual work of producing cloth consisted of somewhat spiritual, even magical, activities that were wrapped in mythological beliefs and feared by men. Almost every incident of magic performed by women in the sagas has a link to cloth, whether that involves cloth itself, the wool from which it was made, or the tools

used to transform one into the other. Consequently, cloth and its production became symbolically gendered and associated with a women's world.

The idea that fate or the giving of life may come from a thread, or be measured by it, also implies that a life could be manipulated through spinning. An example from Laxdaela Saga involves a woman who harms others through the act of spinning (and practicing sorcery). Bolli, Guðrún's husband, returns after killing Kjartan (the man Guðrún truly loves, though he has married another woman), at which point Guðrún remarks that "morning tasks are often mixed: I have spun yarn for twelve ells of cloth and you have killed Kjartan" (Magnússon and Pálsson 1969:176; Ellis Davidson 1990:101; Heide 2007). While she has not killed her lover directly, many have argued (Ellis Davidson 1990;

made from the entrails of men fallen in battle. As they weave, they chant:

... "Blood rains / From the cloudy web / On the broad loom / Of Slaughter. / The web of man / Grey as armour / Is being woven; / The Valkyries / Will cross it / With a crimson weft. / The warp is made / Of human entrails; / Human heads.

The heddle rods / Are blood-wet spears; / The shafts are iron-bound, / And arrows are the shuttles. / With swords we will weave / This web of battle...." ("The Darraðarljóð," *Njal's Saga*, Magnússon, Pálsson, p. 349).

This gruesome poem describes these Valkyries, supernatural warrior women, using their weapons and human body parts as components of the warp-weighted loom: the loom weights are human heads, the heddle rods are their spears, the shuttle their arrows, and their swords are the beaters (Fig. 1). Some scholars feel that the Valkyries worked in a capacity similar to that of their sisters the Nornir in determining fate, since the Valkyries appeared on battlefields to collect the dead and convey them to Valhalla (Bek Pedersen 2007; Guðjonsson 1989). The poem is presented in the context of a dream foretelling the death of several men in an upcoming battle (Norrman 2008; Bek Pedersen 2009). Here, in keeping with the spinning imagery, are depictions of weaving, textile work, and the weaving implements themselves, linked to the body and body parts, to fate and the giving and taking of life. Each thread may symbolize the fate of a man about to die in battle, and interestingly, the heads suspended from loom weights are upside-down, like those of infants in the womb.

Female Agency in Iceland—the Making of Money

These mythological beliefs surrounding women's work provide context for the day-to-day work of women sitting and working together, spinning and weaving for hours at a time, while talking, singing, and coordinating their individual efforts to create cloth, often inside a separate building located close to the central longhouse. Access to this semi-subterranean pit house, known as a dyngja, was like the work going on inside: taboo. Within this space and beyond, women were responsible for all textile production, from the preparation of the wool to its final product as textile. This activity was so gender-specific that men avoided it altogether even when it had become crucial to Iceland's medieval economy.

From the end of the Viking Age to the end of the Medieval period (AD 1050–1600), cloth production became a form of currency in Iceland, which was used to pay taxes, tithes, bride price, as legal compensation, and as a product to be traded abroad (Hayeur Smith 2014). Cloth was the basic unit of measure and

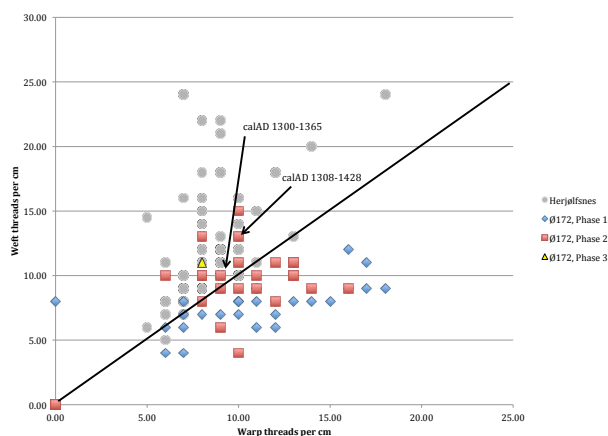


Figure 3. Textiles from three sequential occupation phases at the site Ø172, compared with the late Norse site of Herjolfsnes. Textiles with thread counts above the diagonal line are weft-dominant; those below it are warp-dominant; and those that fall directly on the line are "balanced."

Warp-dominant textiles characterize the earliest phase of occupation at Tatsipa Ataa (Ø172) but are replaced through Phases 2 and 3 at that site by weft-dominant textiles, which were nearly exclusively represented in the 14th–15th century burials at Herjolfsnes

Bek Pedersen 2007, 2009; Heide 2007) that Guðrún's spinning is similar to the spinning of the Nornir, and that it was a magical act intended to influence the outcome of a fight between these two men.

Probably the most telling association connecting wool and textile production, female magic, and the control of life, death, and fate occurs in the poem "Darraðarljóð" in *Njal's Saga*. There, the night before the bloody battle of Clontarf in Ireland a young man in Caithness named Dorruð observes twelve female riders descending from the skies, approaching a woman's weaving hut, and disappearing inside. He peers through the window and sees Valkyries weaving cloth on a warp-weighted loom

the foundation for a complex and organized barter economy and remained so for 600 years until a coin-based economy began to be introduced into Iceland by the Danish colonial authorities at the end of the 17th century. The cloth that became fundamental to the operation of the economic, political, and domestic life of the colony was made through female agency. Women literally wove money, while men were responsible for its distribution as well as recording its legal status and distinctions in the Law codes. Despite this joint effort, men never engaged in its production despite its value in the Icelandic economy. It could be interpreted that the age-old anxieties and taboos surrounding textile work prevailed from the Viking Age and while the stories were forgotten the attitudes remained.

Female Agency in Greenland, Climate Change, and Weft-Dominant Cloth

During the 14th and 15th centuries, the last half of the span during which there were Norse settlements in Greenland, female agency is also apparent in the creation of a new type of cloth, called Greenlandic vaðmál (Østergård 1989). Else Østergård's (2004) pioneering research on archaeological textiles identified subtle changes in weaving techniques during the 14th-15th centuries, when weavers incorporated more weft threads than warps in their textiles. This contrasts with the ways in which most of the earlier Greenlandic textiles were made—with more warp threads than wefts as they had done in Iceland and as Icelanders were still doing in the 14th-15th centuries (Fig.2). The tradition of producing warp-dominant cloth came with Iceland's settlers from Norway and was carried from Iceland to Greenland when it was settled. Østergård never targeted a specific date when this transition from warp-dominant to weft-dominant cloth took place but thought it was a characteristic that could be used to identify Greenlandic cloth in other archaeological contexts.

Between 2009–2010, midden excavations at the Norse farm site of Tatsipa Ataa (Ø172) in southwestern Greenland uncovered a significant number of archaeological textiles. The site, located on the eastern shore of the Igaliku Fjord, was excavated by Konrad Smiarowski from Hunter College in NY, with support from the North Atlantic Bicultural Organization and funding from the National Science Foundation. Textiles from Ø172 were a precious resource for expanding research on this Greenlandic cloth, since the site itself has a well-controlled chronological sequence spanning several centuries that allow specific behavioral traits in Norse weaving traditions to be tracked through time.

In Phase 1-2 (AD 1000–1200) textiles clearly mirrored the Icelandic vaðmál, yet by late Phase 2 things began to change, with an increasing amount of cloth produced

using weft-dominant weaves. The only textiles from Phase 3 (1200-1300) have weft-dominant weaves, as was also the case at the later Norse site of Herjolfsnes, where weft-dominant cloth with extremely high weft thread counts in textiles was used almost exclusively to wrap burials from the late 14th and 15th centuries (Fig.3).

In order to establish an approximate date for this shift in weaving, two fragments of cloth from Area C of the site were sampled and submitted for AMS dating at Beta Analytic's laboratories, in Miami, Florida. Their calibrated dates suggest that the shift in weaving took place somewhere between AD 1308 and 1362. With more AMS dates and additional research on the textiles themselves, I documented that weft-dominant cloth was being produced throughout Greenland's Norse settlements and everywhere its production intensified toward the end of that colony's existence (Fig 4).

In Greenland, these changes in cloth production are temporally correlated with the earliest onset of regional cooling at the start of the Little Ice Age. A rapid, though local, shift in climate around AD 1340–1350 has been documented and implicated in the abandonment of the northernmost Greenlandic Norse settlements. Generally, our discussions of adaptation to climate change are relatively abstract, employing proxy measures rather than evidence of human suffering or agency. This type of behavior, so rarely visible in the archaeological record or manifested in material culture, focuses our attention on the decisions and decision-making processes that women had to make when changing the ways they produced cloth. When temperatures dropped, how would one make warmer garments?

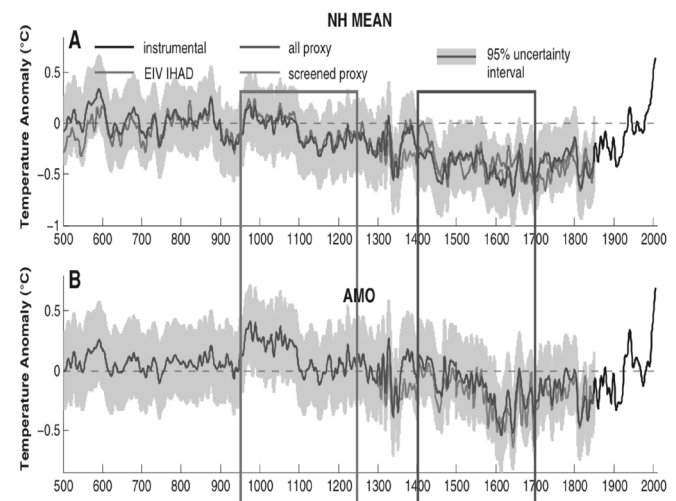


Figure 4. Climate deterioration in the North hemisphere and North Atlantic from multiple proxy records. Adapted from Mann et al. (2009)

In Greenland, furs could have been added into clothing, but this would have added a new level of complexity and labor. By adding more yarn into the weft systems, Greenlandic women produced products that were not vastly different from the original vaðmál in terms of weight, thickness, and appearance, and were not too thick to adversely affect sewing and any other work involved in garment construction but would have been much warmer and more waterproof. It is more than likely that this was the goal these women were after, and rather than adopting the more efficient skin garments of the Thule Inuit they encountered, they chose to stick to their own cultural norms possibly because dress is so intrinsically tied to the projection of cultural identity. It is often women who are the cultural brokers in this area, offering their best solution to the increase in cold weather, and actively participating in the survival of their communities.

Concluding Remarks

This paper suggests that Norse women, despite living in a patriarchal system where they were not considered equal to men, actually possessed a considerable degree of power and agency. The basis of most of this seems to be rooted in their connection to the supernatural, or to specific deities, like the Vanir, especially the goddess Freyja herself. These deities were instrumental in determining life, death and fate, and these connections apparently carried through beliefs and practices linked to textile production as well as other areas of life. Beliefs around textiles seem to have held men back from engaging in textile production in the Viking Age, and even into the Medieval period, when textile production in Iceland became linked with the economy of the island. It is possible to say that while the beliefs dissipated with the introduction of Christianity in 1000 AD, the attitudes did not, and men refrained from textile production completely until the Danish instituted a trade monopoly in 1603.

In Norse Greenland female agency and involvement in subsistence strategies are noticeable. By changing their strategies in cloth production, they tried to keep their families warm at the onset of the Little Ice Age. Despite the fact that the fibers they needed for cloth production were not abundant, they tried to keep the things that were important to their sense of cultural identity, such as their dress practices. Archaeologically what we are witnessing are decision-making processes and aspects of female agency that are rare in the archaeological record. These examples allow us to realize that considering the other half of the population in the study of the past is important for understanding societies as a whole. These new findings makes it clear that there is more to be learned about this fascinating period and its people.

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BURCH ENDOWMENT SUPPORT FOR ASC ACTIVITIES IN 2022

By Igor Krupnik

The Ernest S. ('Tiger') Burch Endowment was established with the NMNH Arctic Studies Center (ASC) in 2012 by the family of our late colleague and long-term research associate, **Ernest S. ('Tiger') Burch, Jr.**, with the aim to support, promote, and interpret the study of Arctic Indigenous peoples and their cultures. The fund ensures that our work and the legacy of Tiger's many decades of collaboration with the Smithsonian and ASC continues. As in previous years, the Burch Endowment remained the prime source of funding for ASC operations in 2022.

Due to the continuing restrictions on travel caused by the COVID-19 pandemic, there was less than usual research and conference travel by the ASC staff, as most activities in 2022 continued to be maintained electronically and via zoom meetings. Nonetheless, the Burch Endowment supported **Dawn Biddison's** conference trips in Alaska and her participation at the annual conference of the Association of the Tribal Archives, Libraries, and Museums (ATALM) in Temecula, CA. The endowment also provided support to **William W. Fitzhugh** for summer field work in Labrador, Newfoundland, and southern Quebec, Canada in July-August 2022.

The Endowment supported our main public event, "Tiger Burch annual lecture" begun in 2015 to promote Arctic anthropological research to wider audiences and our colleagues worldwide. The 2022 annual Burch Lecture was delivered on December 6, 2022, in the NMNH Q?rius Theater by Dr. **Michèle Hayeur Smith**, ASC Research Associate. Her lecture titled "The Valkyries of Linen? Women's Power and Cloth Production in the Viking North Atlantic" gathered an audience of almost 80 people, plus many more on the streaming webcast. Hayeur Smith's research is focused on the analysis of archeological textiles excavated at Norse and Inuit sites in Greenland, and it revealed the 'hidden lives' of Viking women and their contributions to the survival and well-being of their societies as they confronted climatic change, hardships, and increased isolation. A version of the lecture is published in this NS.

The Endowment continued to provide funds for other ASC operations, such as the publication of the annual

ASC Newsletter (No. 29, 2022), ASC membership in the Arctic Consortium of the United States (ARCUS), and research work for other ASC-based projects. That, in turn, allowed ASC staff to re-direct funds to other activities, such as publications, or for the future operations when travel and fieldwork restrictions are lifted. ASC is expecting a major expansion of its activities with the use of Endowment funds in 2023 (see this issue). We plan to continue using Burch Endowment to advance our research and public programs, for conference travel and fieldwork, and for promoting Tiger Burch's legacy to the international Arctic research community via publications, conferences, our annual Newsletter, and professional exchanges.

ASC PROPOSES AN 'ARCTIC RESILIENCE' PROJECT

By Igor Krupnik

In October–November 2022, the ASC staff launched a series of 'all-hands-on-deck' meetings to consider future activities in 2023–2025. We were energized by the presence of visiting fellows, **Elisa Palomino-Perez** and **Coleen Lemaitre**, as well as our research associates, **Bernadette Driscoll Engelstad**, **John Cloud**, **Brendan Griebel**, **Martin Nweeia**, including new partners, **Michelle Hayeur Smith** and **Kevin Smith**, who joined in these talks in person and via zoom. Initially, the discussion was focused on a new exhibit. We all agreed that it should feature Arctic sustainability—material and ecological. The talks were stimulating, but next steps remained elusive. The momentum changed in November 2022 when the NMNH issued a call for two-year 'core science' proposals to support research by museum staff. If funded, such projects would be implemented in 2023–2024 (by early 2025), the very time frame we were considering.

In January 2023, the ASC submitted a proposal for a two-year project, *Arctic Resilience: Strategies, Sustainability, Community Solutions*. We argued for a coordinated study of historical and present-day strategies to increase 'resilience and sustainability' in communities and sociocultural systems across the Arctic and Subarctic regions that are facing climate change at an increasingly rapid pace, as well as impacts from industrial development, mining, globalization, and culture shift. We viewed this project as our contribution to the all-Smithsonian initiative, *Life on a Sustainable Planet*, as well as several U.S. interagency polar and climate/global change ventures, such as U.S. Arctic Observing Network (AON), Study of Environmental Arctic Change (SEARCH), and U.S. Global Change Research Program.

The study we proposed had three major goals. *First*, it was to apply the “resilience–sustainability” analytical framework to explore selected cases of human/societal development across the Arctic, past and present. The paired terms, ‘resilience’ and ‘sustainability,’ feature prominently in today’s environmental and socio-political discourse, particularly as applied to global climate change; yet they have different meanings. There are also specific perspectives on both ‘resilience’ and ‘sustainability,’ as applied to Indigenous people, their values, and worldviews. Our *second goal* was to explore the special role of culture in maintaining and enhancing resilience and sustainability of Arctic communities. Earlier studies have explored paths to a sustained use of Arctic habitats primarily as ‘adaptations,’ via migrations, flexibility, and use of local resources. The more holistic contemporary vision stresses that resilience is also rooted in intergenerational knowledge, as well as in social and community values that ensure solidarity and the sharing of lessons learned. Our *third goal* was to advance partnerships with Arctic residents for future synthesis on how to enhance wellbeing, biodiversity, and sustainable futures. In bringing together data and partners from social and natural sciences, and from Indigenous ways of knowing, we follow the ASC trademark approach rooted in collaboration, cross-disciplinary thinking, vision of multiple agents of change, and solutions from community engagement.

We planned to organize the “Arctic Resilience” project in five regional studies—two in Alaska, two in Canada, one in Greenland, plus one in Education with an Alaskan focus. Each study was to engage a diverse team of partners, so that the overall number of collaborators from three Arctic nations (U.S., Canada, and Greenland) could be close to 30, including from Indigenous institutions and tribal agencies (Tlingit, Yupiit, Inupiat, Inuinait, Greenlandic Inuit/ Kalaallit, etc.). The local studies we proposed follows (in geographical order, west to east):

Coupled human-natural systems at Yakutat, Alaska: A community-science partnership for climate change resilience—**Aron Crowell**, PI, with collaborators **Judith Daxootsú Ramos** (Tlingit, University of Alaska Southeast); **Chris Fisher** (Colorado State University and The Earth Archive); **Mayumi Arimitsu** (Seabird and Forage Fish Ecology Program, US Geological Survey); **Andrew Gildersleeve** (President, Yakutat Tlingit Tribe), in partnership with the Sealaska Heritage Institute, Yurok Tribe (Trinity-Klamath CA), U.S. Forest Service, National Park Service, USGS Alaska Science Center. This project would be a multi-year cross-disciplinary study of human-environmental interactions in the Yakutat fiord area in Southeast Alaska

Hunters’ adaptation to the changing seasonality of marine mammals and sea ice in the northern Bering Sea: **Igor Krupnik**, PI, in collaboration with **Lisa Sheffield Guy** (ARCUS/SIWO), scholars and local community observers under the ‘Sea Ice for Walrus Outlook’ (SIWO) monitoring project, ongoing since 2010. It explores the inter-relation between climate/ sea ice/marine mammals and subsistence hunting, and solutions developed by local communities to foster social and economic resilience and to cope with the ongoing change.

Increasing Inuit community resilience via Digital Return of heritage collections in a time of rapid change: **Brendan Griebel**, PI, ASC, Research Associate, with collaborators **Emily Angulalik**, **Darren Keith**, **Kim Crockatt** (all from the Pitquhirnikkut Ilihautiniq/ Kitikmeot Heritage Society in Cambridge Bay, PI/ KHS), and **Amos Hayes** (Carleton University, Ottawa). The project relies on a new partnership between the Smithsonian and the Inuit community of Cambridge Bay in Nunavut, Canada. Specific targets for this study are ca. 1800 documents, objects, and media related to Inuinait (Copper Inuit) communities at the two Smithsonian museums, NMNH and NMAI.

Basque-Inuit encounter: Resilience, adaptation, and culture crisis in the 16-18th c. Gulf of St. Lawrence: **William Fitzhugh**, PI, with several Canadian collaborators (**B. Loewen** and **C. Laliberté**, Université de Montreal; **F. Rivera**, SSHRC; **S. Arguelles**, Université Laval; **D. Yang**, **Simon Fraser University**), local residents and knowledge experts (**P. Schofield** and **G. Nadeau**, St. Paul River, **N. Shattler**, in St. Augustine), and colleagues at the Smithsonian (**L. Kistler**, NMNH; **C. Solazzo**, MCI). It explores the relationship between Indigenous and European cultures and the historical use of primary natural resources (caribou, seals, whales) along the Quebec Lower North Shore (QLNS) in Eastern Canada.

Resilience via animal exploitation and technological transfers in Greenland between the Ancestral Inuit and the Norse in 11th-15th centuries A.D.: **Michèle Hayeur Smith**, PI, and **Kevin P. Smith** (Co-PI) with local Greenlandic collaborators at the Nunatta Katersugaasivia Allagaateqarfialu/ Greenland Museum and Archives (**Christian Koch Madsen**, **Mikkel Nielsen**), **Aviaaja Rosing Jacobsen**, Inuk ethnographer, and the Kittat Centre and Museum, in Nuuk. This study is focused on the Norse-Inuit interactions and responses to change in West Greenland viewed through the lenses of clothing used by the two cultures.

Increasing Resilience via Culturally Responsive STEM Education on Climate and Ecosystem Change



The Yupik community of Gambell on St. Lawrence Island, Alaska. Photo by Igor Krupnik, 2017

in Alaska: **Aron Crowell**, PI, **Dawn Biddison**, co-PI, with collaborators **M. Benson** and **N. Webster** (NMNH Education), **G. Isaac** (NMNH Anthropology), **D. Lippert** (NMNH Repatriation), **E. Novak** (National Zoo and Conservation Biology Institute). This is an outgrowth of an earlier effort funded by the “Together We Thrive” grant from the SI Office of the Undersecretary for Education to NMNH and NZCB and focuses on collaboration with Alaskan schools and educators in (co)developing culturally responsive, museum-based K-12 STEM curricula with the emphasis on place-based learning.

In late April we were informed that our proposal was not granted, so we are exploring alternative strategies to support our work. Since many constituent efforts used external matching funds, like the proposed visit of Cambridge Bay Inuinnait Elders to NMNH and NMAI in May 2023, they would not be affected by the lack of NMNH funding. Other activities may be supported from other sources, including from our ‘Tiger Burch Endowment’ fund.

ASC will continue preparation for its main event of 2023, a two-day symposium (conference) titled *The Resilient Arctic*, tentatively planned for early November 2023. Established in the fall of 1988, the ASC would turn 35 years of age. We will celebrate the anniversary with a major conference that will bring together our many associates and partners; diversify the pool of perspectives on the processes that frame Arctic transitions, past and present; and facilitate contribution by Arctic Native communities and knowledge holders. We envision the main conference ‘deliverable’ as a collection volume titled *The Resilient Arctic*, with 22–24 chapters. Such a model echoes our recent *Arctic Crashes* project of 2014–2018 (see ASC Newsletters, nos. 26–28). Our team will put special effort into working with local partners and enhancing the value of research, higher education, museum studies, and resilience-building community programs in the North. Please stay tuned for more news about the Resilient Arctic conference and our next major book.

HAULOUT: A WALRUS DRAMA NOMINATED FOR AN OSCAR

By Igor Krupnik

The roaring ocean waves beat relentlessly against the rocky cliffs, while a frigid wind blows in strong gales. A lonely human figure is walking on a sandy beach. Then the man climbs the cliff and scans the horizon with a binocular. He says a few words in Russian on his tape-recorder. He then moves slowly to a delapidated cabin, the only sign of human presence in this far-away place besides the skeleton of an abandoned barge on shore. It is clearly an Arctic site—bare coastal tundra, patches of ice on shore, wind whooshing, and a lonely man with a rifle on his back.

These are opening scenes of a 25-minute documentary called *Haulout* produced by two Russian Sakha film makers, **Evgenia** and **Maxim Arbugaev**. They shot the film on the arctic coast of Siberia in fall 2020; in December 2022 it was nominated to the shortlist of the 95th Academy Awards (Oscar) in the ‘short documentary’ category. It was promoted by the *New*



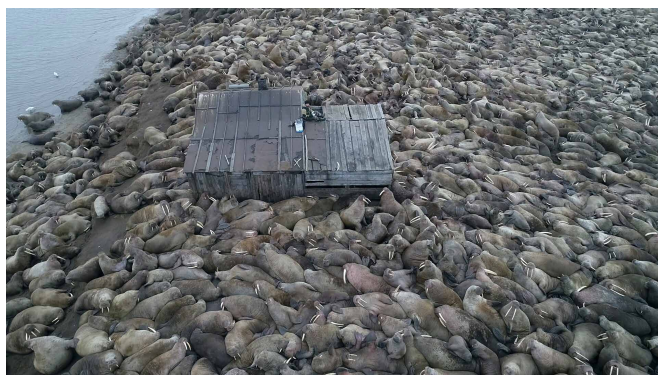
Thousands of walruses surround Chakilev’s cabin at the Cape Serdtse-Kamen haulout site, with over 100,000 animals congregating at the peak of the season. Photo courtesy Maxim Chakilev, 2023

Yorker magazine and has been watched by thousands on [YouTube](#). In January 2023, it advanced with just four others (of an original pool of 144) to the final nomination for the 95th Award that was announced on March 12, 2023. The lonely man featured in the film is Russian biologist, **Maxim Chakilev**, a walrus specialist who lives in the northern city of Anadyr in Chukotka.

Chakilev’s site is no ordinary place. As the film continues, thousands of walruses show up on this desolated beach, crawling up and surrounding the biologist’s lonely cabin (Fig.1). They form the world’s largest Pacific walrus haulout, one that functions for a few months each year, usually from late August or early September till early November. For the past 12-15 years

almost 100,000 walrus, and sometimes more, come ashore and spend time here – resting, feeding, fighting... and dying. The site is located at Cape Serdtse-Kamen' (Heart-Stone, in Russian; Cape Netten, in the Chukchi language) on the shore of the Chukchi Sea, at 66°54' and 171°38'W, about 140 km west of Bering Strait. Though looking distant and isolated, the haulout is only 14 km away from the nearby Chukchi community of Enurmino (Chukchi *Innurmin*, population 320) that serves as Chakilev's base camp and supply hub. It has been known since the Russians first visited this area in the 1700s and existed from ages earlier. In the 1900s, it was visited by **Roald Amundsen**, a Norwegian polar explorer, whose ship *Maude* wintered in front of this community (*ASC NSL* 25, pp. 34–36). Today, when Chakilev leaves the cabin at the end of his season, it is frequented by local hunters, reindeer herders, and passing travelers who help keep it in order.

Dynamic and emotional, the 25-minute documentary is by no means quiet. It is filled with noises: the growling, puffing, moaning, and bellowing of thousands of walrus. It also smells, almost literally, as the stench



A massive 'pack up' of walrus, large and small, at the haulout is a cause of high losses by trampling. Photo courtesy Maxim Chakilev, 2023

from myriad animal bodies is intense (Fig.2. Believe me, one can smell a haulout from a long distance away.) Yet it features few spoken words. Chakilev is alone in his cabin and his voice is heard only in short messages he leaves on his small voice recorder. The only words from the film producers appear as captions in the documentary's very last seconds, as Chakilev's lonely figure trudges over the snow-covered beach as his season ends. "Maxim Chakilev is a marine biologist. Every autumn, for the past decade, he has studied the largest walrus haulout on the planet. At peak haul-out, he estimated more than 100,000 walrus. The enormous scale of this gathering is a consequence of climate change. Walrus rely on sea ice to rest during feeding and migration. But warming

sea force them to spend more time on land, where they are at risk of stampedes and trampling. In 2020, Maxim counted nearly 600 deaths, the most he had ever recorded."

Laconicism is the producers' artistic decision, also a power punch, as the viewers are left to fill in the blanks. Naturally, the questions arise. Why so many? Is it normal to see so many walrus at one place? Why are so many of them dying? Are the walrus sustainable in the long run, with so many dead in one year at one site, after the animals move elsewhere? These are queries that require special knowledge to answer.

Walrus are gregarious animals, with strong seasonal migration patterns and age-sex grouping separation during much of the year. They depend on ice for traveling, resting, nursing, reproducing, and maintaining their complex social and spatial system. To be seasonally on land, on a beach or rocky haulouts, is a *normal* element of their annual life cycle, particularly during years with low (little) drifting ice in the summer and early fall. Yet a concentration of over 100,000 animals at one place is anything but 'normal.' The haulout at Cape Serdtse-Kamen' has been known to local Chukchi people since time immemorial, rather as a series of small seasonal haulouts along the cape, each accompanied by a nearby Native settlement or hunting camp. The main haulout at Cape Netten functioned on and off during the 20th century, with a few thousand, even a few hundred walrus on occasional count. Around 2008–2010, it almost exploded; in their published papers, Chakilev and his Russian colleagues estimate its size at the peak time at 100,000 and more. It never happened in people's recent memory, just like the Arctic itself warming by 3°. The link is obvious, and the mechanism, the melting and retreating polar ice pack, is clear, as the documentary shows.

Then why are so many dead bodies left behind when the animals finally leave the haulout? Both walrus biologists and Indigenous hunters know the answer: trampling of animals by their peers. Coming together in many thousands, walrus could be easily spooked by predators (polar bears, orcas, even stray dogs), any loud noise from a passing boat or plane, or by human presence. Once disturbed, they stampede to the safety of water, often leaving the land like a wave of moving bodies. It always leaves behind dozens of trampled corpses, as well as many more that were injured or maimed.

An additional factor of increased mortality is the mixing of various age-sex groups on today's much larger haulouts. Historically, the Cape Serdtse-Kamen site was primarily a *female* haulout used by females with calves and young animals on their return migration from

the Wrangel Island area in the western Chukchi Sea. According to Chakilev and his colleagues, females with calves still predominate at the site; but biologists now observe a marked presence of adult males, including those coming from the Cape Lay area in North Alaska. Adult males, with massive tusks and characteristic lumps on their skin are clearly visible in the mass of females and calves in the documentary. Even if smaller *male* haulouts exist along the shores of Chukotka, it remains an open question whether the animals still maintain their former seasonal segregation in distinctive age-sex groupings. If the spatial and temporal boundaries that once separated these groupings are blurred or broken (?) now, the plight of haulouts like at Cape Serdtse-Kamen adds more evidence of a population stressed by rapid restructuring due to climate change.

Last but not least, can walrus sustain such heavy losses? The message in the film is that in 2020, almost 600 dead animals were left on shore after the herd moved away. It clearly concerns Chakilev and his Russian colleagues, who anxiously monitor the number of dead animals at several coastal haulouts. It differs from place to place, and it is obviously growing, as more animals come ashore each year. The death rate is the lowest at the primarily male haulouts in the Gulf of Anadyr and closer to the Bering Strait and is the highest at ‘mixed’ haulouts on the Chukotka Arctic shore where calves and nursing and pregnant females are all lumped together with massive, often aggressive bulls twice their size. So, the danger to small animals and pregnant females is obvious (see above); naturally, these animals constitute the bulk of those trampled, maimed, or dead (or left to die, as shown in the film). At another coastal haul-out at Cape Shmidt at the southwestern edge of the Chukchi Sea, 575 walrus were found dead in 2017, of whom 44% were calves, and another 40% were young animals. At Cape Serdtse-Kamen, Chakilev documents a larger number of pregnant females (and aborted fetuses) among the dead. It is a heavy rate of ‘attrition’ of the young and of reproductive females for a population under stress.

Yet, dead walrus on coastal haulouts make only one piece of the animals’ annual ‘puzzle.’ Walrus females deliver their newborns in April–May, on drifting ice floes during the northward migration. This is almost five months before they would come ashore at Cape Serdtse-Kamen on the return route. Yet the progressing ice melt is, similarly, felt in the spring, as the ice breaks up earlier, is thinner (than before), and it breaks in smaller floes to make platforms for walrus migration. Many floes melt into the water even before they reach the Bering Strait, which forces females with the newborn calves to swim hundreds of miles. The losses from this seasonal stress are still unknown and undocumented. Again,

climate change creates an intricate set of domino effects across wide regions and complex ecosystems, of which we still know so little. We need more data, people, and dedicated effort to solve this riddle.

As the *Haulout* documentary makes a powerful pitch on the impact of global warming at a distant corner of the Arctic, one voice is clearly missing—that of local Chukchi hunters. Whereas biologists like Chakilev are monitoring walrus at haulout sites for a few months each year, local residents literally live with, and next to, walrus that provide food and other resources (hides, tusks and bones for carving, meat for dog-teams, etc.) that support local communities. Hunters from the nearby Chukchi towns of Enurmino and Neshkan actively pursue walrus on water, ice floes, and shore; they monitor their movements, health status, feeding and behavioral habits, as well as the animals’ response to climate change. This lack of Indigenous perspective on what happens at the Cape Serdtse-Kamen haulout is the key gap that the public and scientists like Chakilev cannot fill on their own. Adding such a ‘human touch’ by the people who know the walrus intimately and who call the Arctic ‘home’ is the next step for this magnificent film and for those concerned with the relentless pace of planetary change. We should be grateful to biologists like Chakilev and to people like Evgenia and Maxim Arbugaev, who help drive the message home to the world at large and to the Academy Award hallways.

As this NL issue was going into layout, we learned that the 2023 Oscar in short documentary category was awarded to The Elephant Whisperers, a story of an elderly couple from south India, who devoted their lives to caring for an orphaned baby elephant named Raghu, forging a family bond with the young animal. So, while Haulout did not receive a prize, it certainly helped focus world’s attention on the plight of the Arctic and of one of its iconic marine mammal species in peril. This story was also recently featured on the NMNH Ocean Portal site in a [blog](#) written by Danielle Hall.

STUDYING WESTERN ALASKA BOW AND ARROW TECHNOLOGY

By Coline Lemaitre

In November 2022 I started my fellowship research on the bows and arrows and related archery collections from western Alaskan societies at the SI Museum Support Center (MSC). I focus primarily on sinew-backed bows and associated arrows manufactured by Inuit societies as a very adaptive weapon system responding to diverse hunting and warfare activities.

I dedicated almost three months on the bow and arrow fragments, arrow points, and sinew reinforcement

pieces that James Ford excavated between 1925 and 1927 at the Birnirk site near Utqiagvik (Barrow). A total of 27 arrow fragments, 30 bow fragments, and some other related archery artifacts were observed, measured, drawn, and photographed from every angle. This was followed by analysis of complete bows and arrows (about 20 objects each) from ethnographic collections of Yup'ik and Iñupiaq cultures, mostly collected by

Edward Nelson and **Lucien Turner** at the end of the 19th century. Almost the same protocol was used on these ethnographic objects. Processing the data from drawings, photographs, and precise measurements will now be the biggest challenge for the following months. Indeed, little is known about traditional bow and arrow technology other than the descriptions of ethnographers in the late 19th and early 20th century, and work by archery experts like **Michael Frank** (2019) on ethnographic Arctic bows and arrows and their making. No large technical analysis has ever been done on the Smithsonian collections.

The study has followed two research paths. First, I am creating a more specific vocabulary and expanded typologies related to Arctic bows and arrows and their components. Describing each component into typological groups helps determine whether there are geographical or cultural patterns and recurrences, and if some typological groups can be cross-referenced with other components' groups. In addition, I am studying the mechanical behavior of each component and its technical role in the whole shooting system; a range of features, shapes, and sizes are observed on the ethnographic and Birnirk materials. Some bow and arrow features and shapes were accurately described by ethnographers like **John Murdoch** (by type of sinew-backing and bow profile) as belonging to several geographical or cultural groups; but some diversity exists within these groups as well, and some are more sporadically present or even absent. This



*Coline Lemaitre at work.
Photo courtesy Coline
Lemaitre*



*Yup'ik bow sinew-backed, #E33884,
Nelson collection, ca.1880, from
Pastolik*

diversity reflects individual or small group choices, failings, and experiments, social interactions and trade leading to eventual technological development and improvements. One approach to solving the mystery of such diversity is looking at mechanical and technical aspects of components using calculations and 3D simulations of performance. This could highlight the utility of a component in the mechanical system and explain its meaning. In this way, we can approach smaller scale social group diversity and help answer questions such as why some aspects of the bow or the arrow follow systematic patterns, while others are very diverse or sporadic, and why some archers made things differently from others in the same area or culture.

My study of the Birnirk fragments and ethnographic bows is part of a larger work on the Arctic sinew-backed bow and arrow systems. I have combined my personal knowledge of archery, mostly empirical, as an archer myself, with

discussions with physicists, mathematicians, and bow-makers. My research at the Smithsonian will lead to comparisons with previous and future work on other archaeological sites in west and southwestern Alaska (Nukleet, Cape Espenberg, and Nunalleq), and on other ethnographic objects held in European Museums.

In addition to this "laboratory" museum research, I have a strong community approach. A workshop on archery with the Cambridge Bay Inuit community (Kitikmeot Heritage Society) from northwestern Canada will be held in May 2023 in the Smithsonian's collections. Information given by Inuinnait representatives will help future experiments and reconstructions that will begin next summer in Quinhagak (southwestern Alaska) where I will meet one of the last Yup'ik bow experts. This will provide a comprehensive update on the current know-how regarding archery in contemporaneous Alaskan communities, giving voices to Elders' memories and local experts to recover an endangered cultural heritage.

SEARCHING FOR INUIT ON THE NORTHWEST COAST OF NEWFOUNDLAND

By William Fitzhugh, Serai Barreiro-Argüelles, Ben Fitzhugh, Brad Loewen, and Dongya Yang

Recent archaeology on the Québec Lower North Shore (QLNS) has revealed an extensive complex of Inuit winter houses associated with Basque sites and material culture. The Basque association with Inuit presence in the 17th and 18th centuries remains unclear, as is the absence of Inuit summer sites on the QLNS. Another unusual feature of Inuit life here is the predominance of caribou in their winter house middens since the LNS has been a marginal caribou habitat. An in-progress ancient DNA study undertaken by the University of Montreal, the Smithsonian Institution, and Simon Fraser University has found that the DNA of some Inuit site caribou remains match the Newfoundland subspecies, and not the Labrador-Québec herd. Indeed, a local QLNS source seemed logical because caribou were available on this coast until the middle of the 20th century. Hunters in Rivière-Saint-Paul report regularly seeing caribou into the 1970s, but not subsequently. Today QLNS hunters hunt caribou in central and northern Labrador-Québec when a hunt is even permitted. These interrelated questions led us to ask whether Inuit, having acquired Basque chalupas, may have spent part of their summer in northwest Newfoundland and carried caribou carcasses home with them for winter consumption on the QLNS. These questions provided the stimulus for an archaeological survey during 16–29 July 2022 in northwestern Newfoundland from Port Saunders to St. Barbe. Our first goal was to collect shed antlers to enrich our DNA database of Newfoundland caribou. Our second purpose was to search for historic Inuit sites.

In addition to their relative abundance, Newfoundland caribou as an aggregate herd has been isolated from the Quebec-Labrador herd following the retreat of glacial ice and submergence of the Strait of Belle Isle (about 8,000 years). All caribou in Newfoundland share more biological ancestry with other Newfoundland animals than with their Québec-Labrador cousins. So, although caribou may occasionally have crossed the Strait on the ice or swimming, there has not been enough genetic contact to blur the geographic boundary (Wilkerson et al. 2018). Based on this genetic distinction, we hypothesized two alternative scenarios to explain Newfoundland caribou at 17th century QLNS Inuit sites: 1) direct provisioning by Inuit hunting animals in northern Newfoundland, and 2) exchange of skins, hides, baleen and feathers from Labrador and Quebec for Newfoundland caribou and other products with Europeans or Indigenous people present along the west coast of Newfoundland.

Our fieldwork in 2022 was directed at the coastal region from Port Saunders to St. Barbe with two main objectives: 1) surface-collecting caribou samples, and 2) investigating tent rings reported on Old Ferolle Island by **Callum Thompson** in 1993 and 1995. The first objective was to support our QLNS caribou ancient DNA research project, which aims to determine the genetic identity, geographic stock and sex of archaeological samples to better understand Inuit hunting strategies and seasonality. We organized a survey to find recent caribou tissue such as shed antlers, excrement and hair. Informal conversations with local Newfoundlanders who fished, trapped, and hunted were key to gaining insights into caribou behavior that residents have built over generations. We visited locations frequented by caribou during the summer season, which coincides with Indigenous and European occupation.



*Bella Ferrin collecting Sample #8 at Current Island.
Photo by Sarai Barreiro-Argüelles*

Our second objective was to record and assess tent ring features reported in 1993 and 1995 by Callum Thompson on Old Ferolle Island to ascertain whether these structures were occupied by Inuit as suggested by Callum Thomson, by other Indigenous groups, or by Europeans. Old Ferolle was chosen for its ease of access and its proximity to Port-au-Choix, Pigeon Cove, New Ferolle and Current Island where caribou are present during the summer. We had also planned to investigate the tent rings reported by **John Kilmarx** (1987) on St. John Island, but weather and logistics thwarted this plan. Kilmarx reported “few associated artifacts” at the two sites but felt these objects were “probably Dorset”. Similar reasons prevented us from investigating tent rings reported on Keppel Island (Fitzhugh 1982). Notably, **Dale Kennedy** and **Latonia Hartery** have not reported Inuit-style rings during their research in the Bird Cove-Plum Point region (Hartery 2004).

We carried out pedestrian surveys in Eddies Cove, Old Ferolle Nord (EgBf-4), Current Island, Pigeon Cove, and New Ferolle to obtain contemporary caribou DNA samples and look for signs of historic Inuit camps or hunting. All these sites are strategic areas known for their hunting resources and European presence. Transects spaced at 5 to 10 meters between surveyors along the coastal zone allowed us to record a range of historic and possible prehistoric structures.

Caribou DNA Sampling

We collected a total of nine antlers and bone samples at Point Riche Peninsula, Port Saunders, Eddies Cove, Dog Peninsula, Bird Cove, Old Ferolle (Plum Point) and Current Island. All samples were surface-collected except for ones donated by local residents.



*The large boulder mound at Pigeon Cove.
Photo by Saraí Barreiro-Argüelles*

We encountered several unexpected archaeological features during our survey. At Current Island we recorded more than 85 stone features. French seasonal fishermen fished these waters in the early 1800s. On the east side of the island we found stone mounds that could be part of a cemetery. Along the south and west shores are numerous small stone cairn markers connected with fishing or seal hunting activity. The markers are conical, vary in height from 40 to 60 cm, and have a vertical cavity at the top for inserting a wooden pole, some of which were still in place. Most markers are found in pairs for creating alignments for positioning offshore fishing or lobster trap locations. Blinds for hunting birds and caches for storing seal or caribou also occur. Other less common structures include dog burial cairns as well as modern campfires and tent sites.

On the northwest shore of Pigeon Cove Point we found six features, two of which are dog graves and one large rock pile that might be a human grave mound. Another

large mound was found associated with a boulder enclosure and caches just north of at Jim Muse Cove, north of the New Ferolle light, as well as other markers, blinds, and caches. All these structures are at the shore, usually on the lowest beach ridges or wave-cut benches.

Tent Rings at Old Ferolle

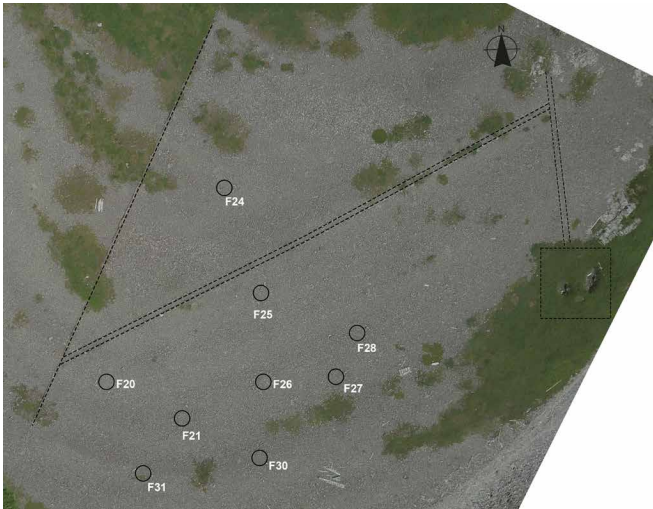
Work on Old Ferolle Island focused on the tent rings reported by Thomson. These tent rings are located on a natural marine-deposited surface of limestone slab rock bordered by three pavement lines, each about one meter wide that appear to have been pathways for transporting fish, possibly by wheel- or hand-barrow. We documented tent rings to identify their characteristics and possible cultural affiliation with European fishermen or to Inuit or other Indigenous groups. A drone obtained a plan view from which we were able to draw the rings.



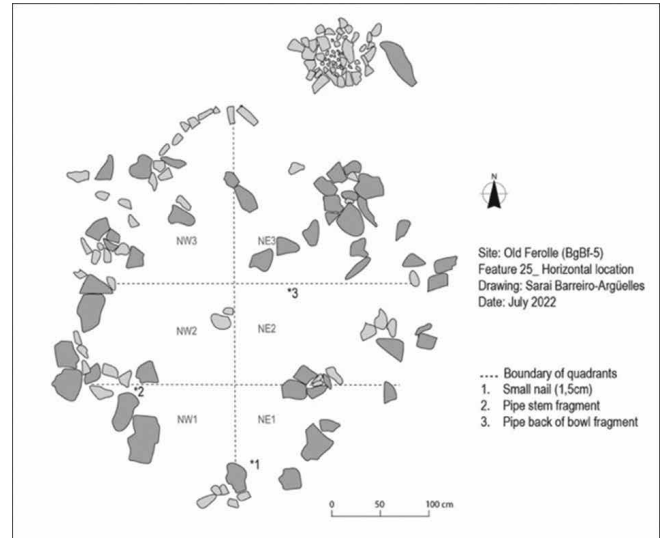
Hunting blind on the shore north of New Ferolle near the town dump. Photo by Ben Fitzhugh

Each tent ring can easily be identified as a surface structure placed on the natural flakes and are not embedded in the beach rocks. The rings typically measure four to five meters across and are roughly circular. However, their layout is often irregular because over the years some stones have been moved by their occupants or accidentally later on. There are possible hearth features inside and outside the rings, but these have no regular structure and most consist of a small cluster of rock slabs. The tent rings are spaced at distances of 10 to 15 meters, with no overlapping rings. It is thus possible that all the tents existed at the same time.

We excavated tent ring Features 25 and 27 looking for small artifacts or bones. In Feature 25 we found small stem fragments of a clay pipe, while on the surface of Feature 27 lay a piece of insole shoe leather with sewing perforations. At the conclusion of our Old Ferolle work, we spent a few hours clearing the



Old Ferolle Island (EgBf-5) showing the fish-drying flake area, stone-paved pathways, and tent rings found on the flake surface Photo by Sarai Barreiro-Argüelles



Plan of Feature 25. Sarai Barreiro-Argüelles

encroaching vegetation from the French bakery site (BgEf-4) at the north end of New Ferolle island.

Due to their irregular outline, the rings do not readily conform to traditional Inuit tent rings, which are larger and have a line of rocks marking a rear sleeping area; nor do they conform to French or English tent styles. On the other hand, they are most similar to Beothuck or Mi'kmaw camps. The cluster of nine rings within the confines of the flake drying surface at the fishing station on Old Ferolle suggests the French fishing operation was the probable attraction for the tent-ring occupants.

Conclusion

None of the sites visited readily corresponds with traditional Inuit-style tent or artifacts, and even though we could not visit St. John Island to investigate its rings, Kilmarx reported associated Dorset artefacts. The tent rings at Old Ferolle suggest that further excavation may identify their builders, who seem likely to have been Indigenous people attracted to this large fishing station, rather than Europeans. The seasonality of the summer tent rings complements that of the Inuit winter houses found on the Québec Lower North Shore (QLNS), while the Newfoundland origin of some caribou consumed on the QLNS also suggests a cross-gulf dynamic for 17th-century Inuit. The results of our caribou sampling will help advance knowledge of Inuit hunting strategies and the locations where Inuit obtained the caribou found in their Lower North Shore middens. More investigation is needed into the tent ring features of northwest Newfoundland, to shed light on Indigenous relations with Basque or French seasonal fishing crews operating on this coast in the 17th and 18th centuries.

Acknowledgements

Our project was supported by the Colburn family at Lushes Bight and in Port Saunders by **Bill and Ilene Lowe** who graciously hosted us and taught us local history and caribou lore (sadly, both passed away later in the year—see transitions section below). Ben Fitzhugh shared field skills, mapping, and drone expertise. Smithsonian interns **Bella R. Ferrin** and **Whitney Hadley-Salay** provided invaluable survey assistance. The PAO provided permits, encouragement, and funding.

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A BASQUE WHALING STATION IN ST. PAUL RIVER, QUEBEC

By William Fitzhugh, Sarai Barreiro-Argüelles, and Francisco Rivera Amano

Information on Basque whaling in Labrador and the Gulf of St. Lawrence, known to Basques as Gran Baya region, comes largely from Red Bay and a few other locations (Barkham 1980,1987; Azkarate et al. 1992; Grenier et al. 2007; Loewen and Delmas 2012). This seems unusual considering the large number of Basque stations now known from Nova Scotia and New Brunswick, Newfoundland, southern Labrador, and the western St. Lawrence Gulf. Our excavations at Inuit sites on the Quebec Lower North Shore shows that while Basque materials are common in these Inuit settlements, the tiles, ceramics, metal, wood, and other European materials have never been linked to specific Basque sites. The large quantity of European materials, including fragile objects like wine glasses and tableware indicates that exchanges must have been conducted in person at Basque shore stations or from floating trade rather than by Inuit scavenging abandoned or seasonally vacated Basque stations. With very little literature available describing these contacts, we have to rely on archaeological evidence.

To date most of this evidence has come from Inuit winter houses and middens from four sites:

Hare Harbor (EdBt-3), Little Canso Island (EhBn-9), Belles Amours (EiBi-12), and Hart Chalet (EiBh-47), ranging geographically from Harrington Harbor to Brador and Brador (Fitzhugh 2019a). A fifth site recently excavated on Grande Isle in St. Paul River (Fitzhugh et al. 2019b) provides an opportunity to investigate possible Inuit-Basque exchange with a small Basque whaling station located less than a kilometer away on Bonne Espérance Isle. The Grande Isle site has two components: a rectangular tent (qarmat) structure which was found half-eroded

from a beach terrace a few meters from a partially constructed sod and earth winter structure. Both structures contained Inuit soapstone vessel fragments together with forged nails, roof tiles, and other European materials. The winter house had part of its floor paved with a wide sawn plank from a European ship. This settlement appears to have been occupied by an Inuit family who may have been the first Inuit to settle in the St. Paul region. And as far as we know, they were also the last to do so, as their house was burned and an Inuit male was found in the 1970s buried with his harpoon and snow-knife in a make-shift grave a few hundred meters away.

While we were excavating the Grand Isle site in 2019, University of Montreal divers found tiles and ship ballast long the western shore of Bonne Espérance, and a land survey revealed two small trywork blubber-furnace mounds hidden beneath surface vegetation. These sites, BE-3 (EiBk-60) and BE-4 (EiBk-61), are on a narrow channel separating the southern extension of Grande Isle from Bonne Espérance and are within a kilometer of the whaling grounds in the Gulf. Both sites are sheltered from wind and surf adjacent to a protected ship harbor, and are less than a kilometer from the Grand Isle Inuit sites.

For two weeks in August 2022, we tested the northern furnace site (BE-4) and found it to be a

small-scale butchering and blubber-rendering station containing large amounts of baleen, charcoal and cinder, and a small inventory of Basque ceramics and iron. Excavations were conducted in four areas: a stone wall at the south end of the site; a central mound composed of boulders and cinder; a 'baleen pit' full of charcoal and baleen; and a residential or general work area at the north end of the site. Time constraints limited our work to a few square meters in the tryworks and exploratory tests at the more open and level north end of the site.



Bonne Esperance-4 (EiBk-61) viewed to SW before excavation. Photo by W. Fitzhugh



BE-4 layout and excavation areas. Photo by F. Rivera Amano

Other than James Tuck's general descriptions of the Saddle Island sites, there are few accounts of the construction and layout of Basque whaling stations. Jean-Pierre Proulx provides the following:

Each tryworks consisted of a granite and sandstone structure measuring around 1.0 m high by roughly 2.5 m deep and comprising one or more fireboxes. An opening situated at the base of each firebox and always facing shoreward was used to introduce fuel for stoking the ovens. Up to six additional circular openings were located on top of the tryworks for installing the copper cauldrons used to boil down the whale blubber....[they] put the ruggedness of the terrain to good use. They began by building a wall opposite a vertical outcrop of bedrock and then set tree trunks on the wall to serve as posts. Next they installed rafters, placing one of their ends on the wooden posts and the other on top of the rock outcrop. According to one historian they laid baleen on the rafters to support the tiles used to roof the shelter (Proulx 2007:1-66,67).

Site Description

Bonne Espérance-4 lies on a ten-meter wide bench that extends along the shore ca. 150 meters from a sea cliff at the south end of the site to a small cove that terminates the level ground to the north. [fig 2] On its west side the 2.5 m high bench (ledge) drops into deep water, allowing boat access at any tide; the site is bounded to the east by a steep hillside. The location would not be ideal for a habitation, but it is suitable for bringing boats alongside, for butchering whales, landing blubber, loading casks of oil, and assembling barrels. A meter wide linear mound runs through the site's south end, paralleling the rising hill for ten meters, ending in an oval, meter-high mound in the center of the site. The north side of the mound has a declivity where our 2019 test pit produced baleen, charcoal, seeds, and bone. The north end of the bench has a 4-6 m wide level open area that rises gradually into the steeper hillside. The 2019 underwater survey revealed roof tiles and ballast rock on the bottom below the ledge, deep enough to be protected from winter sea-ice scour. No underwater work was conducted in 2022.

We imagined that BE-4 would follow the pattern of the Red Bay tryworks—a 2-meter wide linear pile of rocks, sand, and sod paralleling the shore, with openings on top for rendering pots and at the seaward base for fuel—wood and wasted blubber. The structure that emerged from a 1x4 m cut transverse trench revealed something different: a 50 cm thick, 70 cm high wall of 3-4 courses of laid-up rocks with no place for pot depressions. West of the wall, extending to the shore edge of the ledge, the soil consisted of tryworks sheet midden containing burned rock, charcoal, burned and

broken tile, blubber cinder, and no artifacts except burned tile. However, in the 2-meter wide space between the wall and the rising hillside was a 50 cm deep deposit of waterlogged peat overlying cut wood, a fragment of what seemed like a sealskin garment, tiles, domestic ceramics, nails, baleen, birchbark, and small flint fire-starter flakes. This deposit appeared like a domestic cultural midden rather than trywork refuse. At this point, the function of the wall and its relation to oil rendering and other activities remains unclear. However, it is interesting that building a wall on the seaward side of a tryworks was a common element of Basque trywork design as noted above.

The Mound and Baleen Pit

The stone wall ends in the central area in a 3x4 m oval mound construction of small boulders, gravel, and sand containing tiles, charcoal, and large lumps of cemented



*Baleen pit and oval mound to its south.
Photo by W. Fitzhugh*

cinder. The inner part of the mound had large voids between the rocks and clumps of cinder. Adjacent and north of the mound was the small flat area we tested in 2019. We opened a 2x2 m unit expecting to find a small tent site or domestic work area, but instead encountered layer upon layer of charcoal and baleen separated by lenses of gravel and sand extending 60 cm below the surface, with large pieces of baleen and partially burned, ax-cut wood. Stratigraphy indicated we had excavated part of a 2-meter wide pit bounded by the mound to the south and a jumble of large rocks to the south and west. Time did not allow us to reach the bottom or to explore its margins or structure. In addition to meter-long strips of baleen near the bottom, its uppermost layer produced a 20x20 cm wide bundle of baleen plates stacked on top of each other like a

deck of cards. The width of the plates indicates a large whale.

Testing north of the baleen pit produced a culture layer with a few nails and ceramics as well as charcoal and baleen resting on sloping bedrock. And in the likely area for general habitation at the north end of the site, two 50 cm tests revealed a 10-15 cm thick cultural layer beneath 30 cms of peat. This layer produced charcoal, baleen, ceramic cooking potsherds, flint chips, and wood—a convincing assemblage suggesting this area was used for domestic or trywork support activities.

Summary

Bonne Espérance-4, like its neighbor BE-3, appears to be a small-scale blubber processing station that required a relatively small amount of labor to construct



*Layered stack of baleen plates.
Photo by W. Fitzhugh*

its rendering oven and related facilities. The central mound may, if fully excavated, reveal a space for a single rendering pot, but the site does not have multi-pot furnaces known from Saddle Island in Red Bay. BE-4 seems to have been operated by a small chaloupe team that would have been supported by a ship anchored nearby in ‘Bonny’ Harbor. BE-3 seems to have been a parallel operation, and each may have been built and manned by separate chaloupe teams affiliated with a mother ship. A striking feature of the archaeological finds is the large amount of baleen—presumably bowheads—found throughout the site. None of the baleen appears to have been burned, and its casual disposal suggests it was not of commercial value at the time. Its use as tryworks shed roofing might explain its ubiquity. Our excavations—while quite

limited—did not produce many nails or ceramics, but the presence of marmite cooking pots and abundant flint fire-starting chips indicates domestic as well as industrial activity and recalls the type of assemblage found in the 16th century Basque hearths at Petit Mécatina near Harrington Harbor. The absence of clay pipes from BE-4 may also be a clue to a 16th c. rather than 17th c. date.

It is not surprising that our limited tests did not turn up evidence of Inuit contact, although the presence of a garment made of sealskin may be an intriguing clue. However, the proximity of the Grande Isle Inuit settlement offers a chance that the BE-3 and BE-4 whalers might have been present at the same time as the Inuit, and if so, each would have been curious about the other’s activities and materials. So far, evidence of contact is found only at the Inuit site in the form of tiles, iron spikes, and a large oak ship’s plank. We will be curious to see if Inuit soapstone vessel fragments turn up in future work at BE-3 or -4, and if more remains of an identifiable sealskin garment turn up. Even if not, these sites show promise for defining a new type of small-scale Basque whaling station conducted by small chaloupe crews. Further work will be necessary to determine if the sites date to the early phase of Basque Grand Bay whaling before the development of the industrial scale seen at Red Bay and other sites, or whether they are small-scale operations contemporary with the larger sites. Proteomic, DNA, and stable isotope studies of the baleen may provide clues to help clarify the age, nature, and history of the Bonne Espérance whalers and their Inuit neighbors.

Acknowledgments. Our brief fieldwork was made possible by support from the University of Montreal, SSHR, and Smithsonian Institution. Local support was provided by the Whiteley Museum, the Bonne Espérance Municipality, and the Centre de Services Scolaire du Littoral, Québec. Garland Nadeau and Eileen and Piercy Schofield were invaluable hosts and information sources. Perry Colbourne provided transportation and boating assistance and kept us well-stocked with stories and bakeapples.

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VIKINGS, VOLCANOES, AND RAGNARÖK: ARCHAEOLOGY OF SURTSHELLIR, ICELAND

By Kevin P. Smith

On the 19th of March, 2021, following three weeks and 40,000 earthquakes, Fagradalsfjall, a long-dormant mountain 20 miles south of Iceland's capital, Reykjavík, erupted into life. Following initial concerns that it would endanger the capital or disrupt international air travel through Keflavík airport, 11 miles away, it soon became clear that the eruption was effusive, likely to generate lava flows for years or decades rather than being a rapid and violently explosive event. Within weeks, tourists streamed in to see the volcano. Ultimately, the eruption was credited with saving Iceland's COVID-battered, tourism-driven economy.

However, in the late 9th century AD, when Viking Age colonists discovered Iceland, they could not have known that they would be colonizing one of the world's most volcanically active islands. For them, Iceland – a previously unknown and unoccupied land with forests, freshwater lakes and rivers, saltwater bays teeming with marine mammals, and meadows to feed their livestock – presented untold opportunities. They came, as genetic, isotopic, and material culture analyses confirm, primarily from continental Scandinavia and the British Isles, two of Europe's least tectonically active regions.

Shortly before Iceland's Norse settlers arrived, two nearly simultaneous eruptions in southern Iceland blanketed much of the island in a distinctive bi-colored ash now dated to 877±1 AD. This so-called "Landnám tephra" lying just beneath the earliest cultural deposits at sites across Iceland, serves as a clear chronostratigraphic marker for the island's Norse colonization. In western Iceland's Borgarfjörður district where I have worked since 1987, the Landnám tephra lies directly beneath

the turf-and-stone walls of the earliest structures at the sites of Gilsbakki, Reykholt, Hálsar and Halldórstoftir, showing that farms and iron-production sites had expanded more than 50 kilometers into the wooded interior before AD 900. Just a few years later, as settlers were establishing farms across the region, the unthinkable happened—a volcano erupted beneath the edge of the massive glacier, Langjökull, that rises as a white wall across the district's eastern horizon.



Surtshellir Cave landscape. Photo by Kevin Smith, 2012



Boat-shaped stone wall structure containing ritual burnt offerings. Photo by Kevin Smith, 2012

The eruption would have been preceded by thousands of earthquakes, increasing in intensity and frequency over weeks as lava moved closer to the surface. As the eruption began, water entering fissures from the melting glacier would have sent volcanic ash high into the air with thunder and lightning – otherwise unknown in the North Atlantic. At night the crater's fiery glow would have painted the sky red. As the glacier melted back and the flow of its water ebbed, the eruption became effusive, sending rivers of lava out from at least two craters for nearly 30 years. Snaking 50 kilometers down into the lowlands, the lava boiled away two rivers and probably covered newly established farms whose names were still known in the 12th century but whose locations are unknown today.

Eventually, 185 square kilometers of once fertile upland meadows, grazing lands, and forests lay beneath a 25 to 40 meter deep wasteland of black, smoking lava, today called Hallmundarhraun. Immediately beneath the base of Hallmundarhraun's lava, a layer of burned forest vegetation resting on the Landnám tephra confirms that the eruption began no more than a decade or two after 877; it would have been the first major volcanic eruption that northern Europeans had experienced directly in their homelands since the Late Pleistocene Laacher See eruption 13,000 years before.

During the eruption, subterranean channels carried lava beneath Hallmundarhraun's surface. When the lava flow

changed direction or intensity, some of these emptied, forming massive caves beneath the surface. Today more than 20 have been located. Ten are known to contain archaeological sites. I have investigated two of them with my colleague Guðmundur Ólafsson, including the largest, Surtshellir.

Surtshellir's name first appears in the 12th–13th century Icelandic *Book of Settlements* (*Landnámabók*), whose laconic passages record stories about the settlers of more than 400 farms established across Iceland between 880 and 930 AD. In just a few sentences, *Landnámabók* tells the story of **Þorvaldur “hollow-throat” Þorðarson**, the son of a chieftain from northern Iceland, who claimed descent from the god Odin and traveled more than 150 kilometers through Iceland's interior to chant a magically efficacious poem into the mouth of the cave inhabited by the giant who dwelled within Surtshellir, “the cave of Surtr”.

Our two primary sources about Viking Age Scandinavian religion, the Poetic Edda and the Prose Edda, were compiled from earlier oral and poetic sources in Iceland during the 12th–13th centuries. Both describe Surtr, whose name means “the blackener,” as the first being in existence, who ruled over Muspellsheim, a land of fire. Heat from Muspellsheim melted the edge of a massive glacier and from that interaction, everything—the gods, the nine worlds of the Norse cosmos, humans, and all forms of life—came into existence. However, the same sources state that Surtr would eventually lead the forces of chaos against the gods and defeat them in the battle of Ragnarök. Surtr, himself, would kill Freyr – god of agricultural bounty, fertility, order, and rulership – and then destroy the earth in fire, flame, and lava.

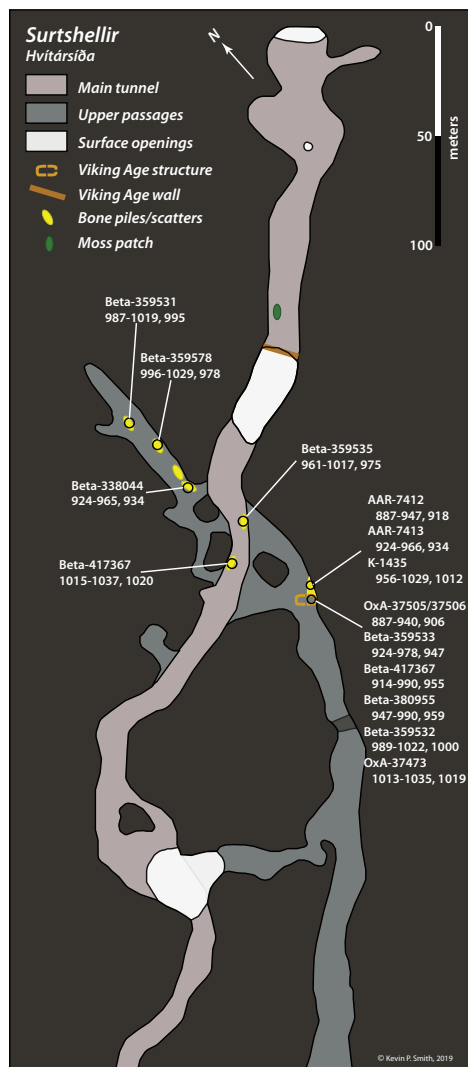
Archaeological remains inside Surtshellir were first described in 1753 by Icelandic naturalists, but they were undocumented until 2001, when **Guðmundur Ólafsson**, **Agnes Stefánsdóttir** (both then at the National Museum of Iceland), and I briefly surveyed the site following reports that tourists were removing

bags of bones. Guðmundur and I returned at Surtshellir in 2012 with **Magnús A. Sigurðsson** (Minjastofnun/Icelandic Cultural Heritage Agency), **Kevin Martin** (then a graduate student at the University of Iceland), and **Mehrdad Kiani** (undergraduate, Brown

University) to map the site with funding from NSF, and in 2013, with additional funding from NSF and support from Minjastofnun, Guðmundur, Magnús, Kevin Martin, ASC Research Associate **Christopher Wolff**, and I excavated the floor of a Viking Age structure 250 meters inside the cave.

Our work inside Surtshellir documented a vast complex of archaeological features beginning more than 100 meters inside the 1.6 kilometer-long cave. There, a massive dry-stone wall, originally 4–4.5 meters tall, had been built across the 13-meter width of the cave. Nearly 120 meters deeper into the cave, two galleries branch to the north and south 5–6 meters above the cave's main tunnel. Thirty meters inside the southern gallery, called Vigishellir, and 250 meters from Surtshellir's entrance, is one of the best-preserved Viking structures in the North Atlantic: a stone-built, boat-shaped, roofless enclosure, 7.5 meters long and 3.5 meters wide, with bowed walls 0.8 meters high. Two narrow doorways in its side walls allow entry from the main tunnel and outwards towards deeper passages.

Micromorphological and paleobotanical analyses by **Sarah Sherwood** (Sewanee University of the South) and **Lee Ann Newsom** (Pennsylvania State University) of a thin, man-made layer of crushed basalt, ash, and bone spread across the floor of the boat-shaped structure and around its entrance showed that intense fires had burned inside it. On the left side of the entrance a heap of fragmented, unburned bones, 2.5 meters wide, 3.5 meters long, and originally 0.8 meters high, had been piled against the structure's outer wall. Two smaller piles of similarly unburned bones lay on the floor of the cave's main tunnel, 30–40 meters north of the boat-shaped enclosure, and four more piles were found



Surtshellir tunnels and archaeological features rescaled with radiocarbon dates.

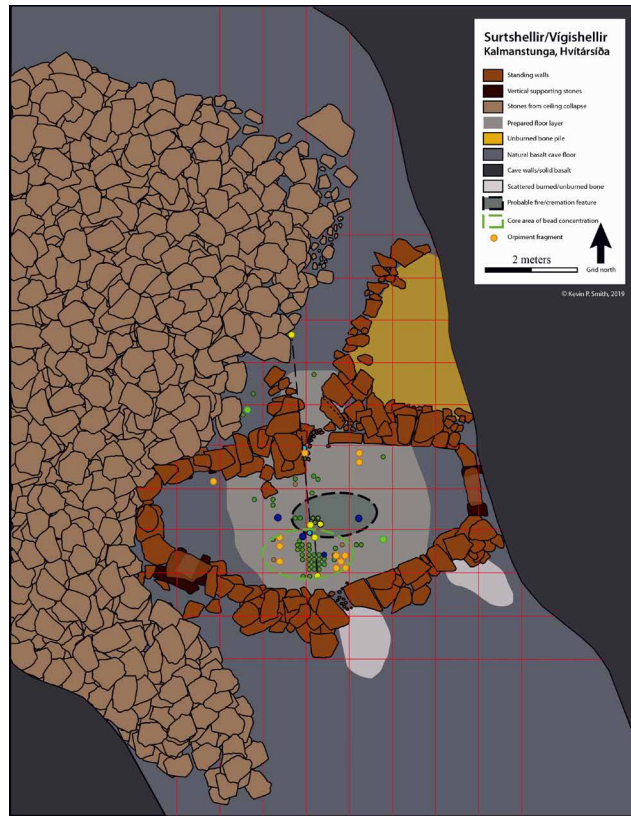
By Kevin Smith, 2021

inside Beinahellir, the side gallery across the main tunnel from Vígishellir.

Twenty radiocarbon dates show that Surtshellir was visited repeatedly for nearly a century between 920 and 1020 AD. Throughout that span of time, bones were added to all of the piles, eventually creating a line that extended 120 meters from the boat-shaped structure inside Vígishellir, across the main tunnel, and into the deepest reaches of Beinahellir. No evidence of Viking Age activity has been found deeper into the cave, nor beyond the walls of the structure in Vígishellir, suggesting that this line of piled bones and the structure in Vígishellir were intended to form a barrier separating this zone of intense activity from the depths of the cave, just as the physical stone wall closer to the entrance separated it from the world outside.

Analyses by **Thomas McGovern** at Hunter College of unburned bones from the pile in Vígishellir, and by **Véronique Marengère** and **James Woollett** at Laval University on burned bones from the floor of the boat-shaped structure, document that all but a few represent sheep and/or goats, cows, horses, and pigs – the core suite of Viking Age domestic animals. No remains of wild animals, fish, or marine taxa were present, and even the few bird bones identified may be from chickens or other domestic fowl. Most of the bones had been broken into fragments with axes, hammers, and large knives before they were added to one of the cave's seven piles. However, the thin floor deposit inside the boat-shaped enclosure were from parts of animals that had been burned there in the flesh at high temperatures.

Unlike the normal mortality profiles of faunal remains from domestic sites, these were animals in the prime of their lives. Recent work at Laval University has even identified the bones of fetal sheep and cattle among those that were cremated, implying that pregnant ewes and cows, along with their unborn offspring, were slaughtered here at the start of spring rather than during



Boat-shaped structure with orpiment (orange dots), beads (blue, green, and yellow dots), burned bone (light grey), and unburned bone (yellow zone). Basemap by Kevin Smith and Guðmundur Ólafsson 2001, updated with finds by Smith 2022

the fall when animals are normally butchered for winter consumption. The seasonality of their death, the sequestration of their bones, and their treatment suggest that these were animals that were ritually sacrificed, curtailing both present and future prosperity.

Hundreds of jasper spalls from starting fires lay scattered throughout the ashy floor deposits in the center of the boat-shaped structure. Their numbers imply that 70-100 fires were started here, probably at annual events. Yet, why not use the torches that people required for light and navigation? One possibility is that the flames that were required to burn these offerings could not be lit with fire carried in from outside but had to be started anew, in the dark. The colors of

these fire-starter spalls may also be significant. While red, yellow, brown, green, white, and gray jasper and chalcedony were all used to strike sparks, obsidian, black like Surtr himself, was not – even though it was the preferred material for starting fires in the farms and was accessible near the cave. In contrast, x-ray fluorescence links the spalls to outcrops 50-80 kilometers away or more, indicating that those who came to Surtshellir traveled, like Þorvaldur holbarki, some days to get there.

Who were these people? Surtshellir's floor deposits produced one of the largest assemblages of imported glass beads known from Viking Age Iceland. These include not only wound glass beads made in southern Scandinavia but also drawn and blown glass made in workshops of either the Byzantine Empire or the Islamic Caliphate. Carefully selected to represent a narrow range of colors (green, yellow, blue, and beige), their acquisition would have required access to trade networks beyond most farmers' reach. Further, by sieving the floor deposits through 1.5 mm mesh, we recovered 12 minuscule fragments of orpiment, a highly toxic, gold-colored arsenic sulfide mineral (As₂S₃) that does not occur naturally in Iceland. In



Fragment of ground orpiment – grid squares are 1 mm.
Photo by Kevin Smith, 2017

the Middle Ages orpiment was used to produce the brightest yellow pigments in illuminated manuscripts such as the Book of Kells, but is only known in Viking Age contexts from the funerary furniture of Denmark's last pre-Christian king, Gorm the Old (d. 950–960 AD) at Jelling; as glittering golden details on the tiller of the Gokstad ship, the grave of a Norwegian chieftain from 905 AD; and now from Surtshellir. The primary sources of orpiment were in the borderlands of present-day Turkey, Iran, and Iraq. Even more than the beads, its acquisition, use, and safe preparation would have been limited to the elite and the artisans they patronized.

Our work suggests that Surtshellir was a unique Viking Age sacrificial site created in response to the existential crisis that Iceland's earliest settlers faced in their first experience with volcanism, an event that required dramatic action and that may have influenced their beliefs about the end of time, as we know them today from Icelandic sources. There, in the darkness of the cave, members of Iceland's elite oversaw sacrificial rituals intended to control and bind Surtr in order to prevent further eruptions or forestall the start of Ragnarök by strengthening the gods who could oppose him.

Sacrifices continued to be made in the cave for a generation after Iceland's official conversion to Christianity in 1000 AD. At the time the site was abandoned, an object decorated with beads and orpiment was set inside the doorway leading to the deeper parts of the cave, and a set of four lead scale weights, one shaped as a cross, was placed on the location where offerings had been burned. It appears both acts were part of a closing ritual intended not only to seal the cave's pre-Christian rituals, but perhaps also, in later Christian times, to prevent Surtr, reimagined as Satan, from emerging from his cave on the Day of Judgment.

Note: for more details, see Smith K.P., Ólafsson G., and Pálsdóttir A.H. (2021) Responses to catastrophic volcanism in Viking Age Iceland: Reconsidering Surtshellir Cave through Bayesian analysis of AMS and tephrochronological dates. *Journal of Archaeological Science* 126C: 105316



Set of lead scale weights. Photo by Ívar Brynjólfsson, 2014, Nat'l. Mus. Iceland

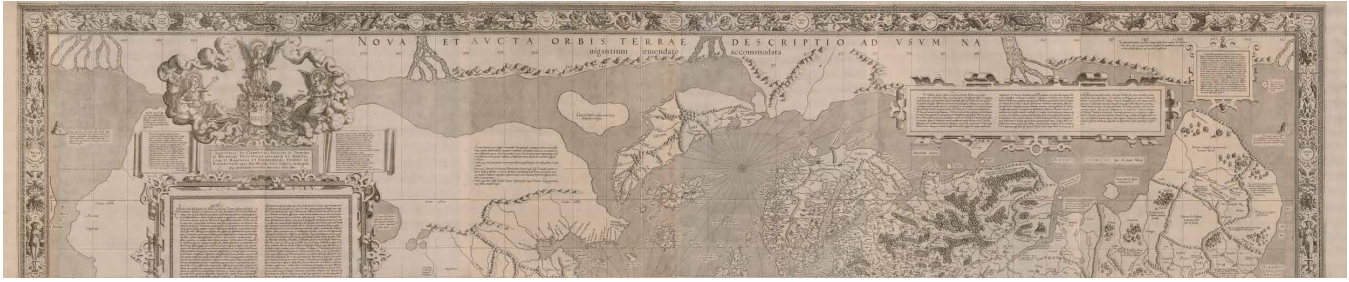
MERCATOR, THE MEDICI, AND THE PAST AND FUTURE OF THE ARCTIC

By John Cloud and Elisa Palomino

In 2020, while exploring the rich ethnographic history of Florence, Italy, we visited the map gallery of the Sala della Guardaroba where, between 1569 and 1609, the three Grand Dukes of the Medici family commissioned a set of painted maps of the known world, meaning, of course, the world as known by Europeans. Most of the maps addressed the lands of every continent except Antarctica, but four were completely unique: four linear oceanic rivers, which didn't exist, flowing between Arctic subcontinents, which also didn't exist, the rivers all converging at the North Pole, which was a mountain of magnetic iron, around which the oceanic rivers plunged into the bowels of the earth. The source for this geography was **Gerardus Mercator**, from his 1569 world map, which introduced the famous Mercator Projection. What on earth was this all about?

Our subsequent investigations of these maps have disclosed revelations about the historical recent past and evident future for the Boreal and Arctic regions, and the peoples who live there. The current era of global warming, triggered by greenhouse gas emissions, put an end, at least temporarily, to the Little Ice Age, circa 1350 to 1850 CE, which followed the Medieval Warm Period, or Medieval Climatic Anomaly, circa 950 to 1250 CE. These two eras spanned almost a thousand years, with great consequences for the peoples and ecosystems of the north, and everywhere else. The recurrent theme was and is that success requires resilience and adaptation.

We are developing this historical research because its lessons are foundational to our present situation, and because it is just a compelling story, linking the greatest scholars and artists of the western tradition to the many disparate peoples of the boreal and arctic regions, as they settled the final ecological frontiers of the planet to be occupied by humans. Mercator's specific "invention" of the Arctic involved a string of specific historical events and actors which can bring the Little Ice Age to life.



Part of the 1569 Mercator Basel world map showing the polar river entrances

Mercator and the Brethren of the Common Life

Gerardus Mercator (1512–1594) grew up in a very poor family in what, then and now, are called the Low Countries (now Belgium and the Netherlands). His homeland had been conquered by the Holy Roman Empire. The key to his life's path was that his uncle was a monk, teaching at a school in the town of 's-Hertogenbosch (meaning the duke's forest). Mercator was allowed to enroll at the school, which was associated with a progressive Christian movement called the Brethren of the Common Life, which was influential, especially as an inspiration to the coming Protestant Reformation. Through the school, and the town, Mercator knew important people, like the humanist scholar **Erasmus**, and the artists and cartographers **Albrecht Durer** and **Hieronymus Bosch**.

But he also learned of the Boreal and Arctic research of **Jacob Cnoyen**, who had lived in 's-Hertogenbosch two centuries earlier, at the end of the Medieval Warm Period. Cnoyen compiled reports by various explorers and speculative geographers, including **Nicolas of Lynn**, circa 1360, who was an Oxford scholar, and friend of **Geoffrey Chaucer**, author of the *Canterbury Tales*. The character Nicolas, with his astrolabe, stars in Chaucer's "The Miller's Tale." All these sources referenced northern settlements and routes greatly changed by the transition into the Little Ice Age.

Mercator's Maps the Arctic

Mercator's maps are major historical documents of the changing Boreal and Arctic lands and peoples as they were known or inferred in that era. At the time, Europeans considered sea ice, which contains no salt, and is called siku in all Inuit languages, had to have come from frozen water deposited on land. Hence the expanses of Arctic ice "required" extensive Arctic lands.

The original Mercator Projection world map shows at the very top the southern entrances to the four polar rivers—each was presented as flowing north from places of high human cultural salience, as had been

recognized two centuries earlier by Cnoyen's sources. Looking at the Mercator Projection map section, in the middle of the map is a large diagonal island, which was Mercator's approximation of Greenland. To the north and west is the strait between Greenland and Nunavut, the fabled "Northwest Passage", and various populations of Inuit peoples; further west, the indention in Canada is Hudson Bay, with Inuit and Algonquin and Athabaskan language family peoples; further west is the Bering Sea/Strait, between North America and Siberia, lined with Aleut, Iñupiat, Yup'ik, Athabaskan, Chukchi and other peoples; and finally further to the west—but showing on the eastern end of the map since the world map "wraps around" the Arctic, is a polar river flowing north from the convergence of the River Ob, the largest estuary of the Arctic Ocean, with Nenets and other peoples settled all around it.

Mercator's polar river geometry stands in a very ancient human tradition, recognizing four cardinal directions, in a cosmic symmetry. The four converging rivers was a concept Mercator was introduced to as a child, in 's-Hertogenbosch, in Hieronymus Bosch's



A section of Bosch's painting, "The Garden of Earthly Delights"

triptych, with the famous central panel now titled "The Garden of Earthly Delights."

Mercator, the man, never ventured farther away than the annual Frankfurt Book Fair, but his cartography, and his sources, illuminated the Boreal/Arctic world. We all participate in the Common Life. We anticipate further research, leading to publications and perhaps a fascinating exhibit as part of the ASC initiative "Arctic Resilience."

VOLUME 1 OF THE HANDBOOK OF NORTH AMERICAN INDIANS SERIES COMPLETED

By Igor Krupnik

A team from the NMNH Department of Anthropology, in collaboration with NMAI and the Smithsonian Institution Scholarly Press (SISP director **Ginger Minkiewicz**) completed the production of Vol.1 in the Smithsonian seminal *Handbook of North American Indians* series. The new 948-page volume, with 35 chapters, over 350 illustrations, several appendices, and a massive bibliography of 260+ pages was first released as an e-book in October 2022 and, later, as a printed gray-cloth volume in early January 2023. A full volume, the first in the Handbook series, can be downloaded free of charge at the [SISP site](#); by March 2023, over 1500 copies had been downloaded.

The production of the new volume took almost 10 years and was led by a small team of current and retired Anthropology curators (**Ives Goddard, Daniel Rogers, and William Merrill**), members of the NMAI staff (**Ann McMullen and Gabi Tayac**), and colleagues from outside the Smithsonian (**Sergei Kan, Joe Watkins, and the late Ira Jacknis**), under the overall leadership of **Igor Krupnik**, who acted as volume's general editor. Several members of the former Handbook

office (**Joanna Cohan Scherer, Cesare Marino, and Daniel Cole**) were also instrumental to the success of the volume. Overall, the team included 70+ chapter contributors and 75 reviewers, both from within and outside the Smithsonian, including authors/reviewers from Canada, Mexico, Germany, UK, and other countries. The entire work was skillfully managed by the virtual (online) volume manager, **Corey Heyward Sattes** and the SISP director, **Ginger Minkiewicz**. It was a great effort of dedication, professional excellence, and loyalty to the legacy of the Handbook series begun in the 1970s, led by the late **William C.**

Sturtevant (1926–2007) and the former *Handbook* office, which closed in 2007.

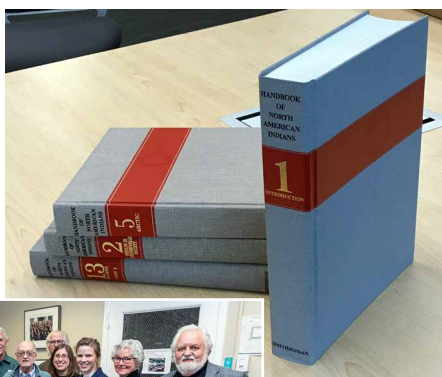
All members of the ASC team participated in the new production: Igor as a general editor and author/co-author on several chapters; **Aron Crowell, Bill Fitzhugh, and Stephen Loring**, as volume chapter authors/co-authors and reviewers; and **Dawn Biddison** was instrumental in securing permissions and high-resolution images for some 300 of volume illustrations. **Igor Chechushkov** worked on the image enhancement, and some of our past and current affiliates (**Ken Pratt, Max Friesen, Joan Gero, Noor Johnson, Susan Rowley**) acted as chapter reviewers. It was a

monumental enterprise that engaged about 200 people overall.

The volume contains one chapter that is specially dedicated to the *Arctic*, written by **Peter Collings** (he is working primarily among the Inuinait, former 'Copper Inuit' in the Canadian High Arctic). Another chapter, *Subarctic: Accommodation and*

Resistance since 1970, written by a joint Canadian-US-UK team of **Colin Scott, William Simeone, Robert Wishart, and Janelle Baker**, covers the interior portion of Alaska and most of Canada north of the US-Canadian border. Yet another regional chapter, *Northwest Coast: Ethnology* since the late 1980s (by **Sergei Kan and Michael Harkin**), expands its coverage to the Alaskan southern 'panhandle.' In addition, sections on Arctic people and communities, as well as photographs, examples, and references to the Arctic/northern conditions are prominently featured in several other chapters that discuss the impact of *climate change* on Native American communities

(by **Margaret Hiza Redsteer, Igor, and Julie K. Maldonado**); status of Indigenous languages (by **Marianne Mithun**) and new digital domains for Native languages (by **Gary Holton**); relations between Indigenous communities and museums (by **Aron Crowell**); the rise of social complexity in Native American societies (by **Dan Rogers and William Fitzhugh**); Indigenous people's relations with Archaeology (by **George Nicholas, Dorothy Lippert, and Stephen Loring**); new ethical relations among anthropologists and North American Indigenous people (by **Joe Watkins**), and many more.



Some members of the Handbook volume team at the celebration on March 8th (left to right): Ginger Minkiewicz, Moises Gonzales, Dan Cole, Joanna Scherer, Cesare Marino, Igor Krupnik (with volume), William Fitzhugh, William Merrill, Stephen Loring, Adrianna Link, Corey Sattes (Heyward), Candace Greene, Sergei Kan. Photo by Phillip R. Lee

Because of its remarkable diversity in both content and breadth of authors/contributors, the volume offers one of the most comprehensive overviews within the Handbook series. It is also aimed to cover the entire of North America, culturally and geographically—from the High Arctic to Central Mexico, and from the Bering Strait to Greenland. We hope that the volume will be well received by a wide audience of readers, *Handbook* lovers, but primarily by new cohorts of students and young researchers, including from Indigenous nations.

THE GLIDDON MUMMY CASE: INTERSECTIONS PAST AND PRESENT

By Lana Troy

[Editor's note: Dr. Troy does not address 'Arctic' matters, but she has been an ASC Research Associate through her Swedish connection with Noel Broadbent and has researched NMNH Egyptian collections for many years.]

There are approximately 1600 catalog numbers in the collection of the Department of Anthropology that relate to Ancient, Greco-Roman or Late Antique Egypt or Sudan. Acquisition dates range from the mid-1830s (John Varden's Washington Museum) to the 1990s, when private donations were comprised of purchases made in Egypt prior to 1970. This group covers a range of object categories, from large stone sculptures, and colorful coffins, to the smallest amulets. Some are well provenanced, acquired directly from excavations in the 1800s. Others came from private collections with no record of when or how they were acquired. And still others were simply found in the archaeology collection and lack any background information. They represent about 140 different acquisitions, as well as about 35 items transferred from the National Institute in the early 1860s. Each object carries a multiplicity of stories, relating to its materiality and historical context, its path to the collection, as well as its subsequent research and exhibit impact. 'The Gliddon Mummy Case' provides an example of the many intersections between past and present.

'The Gliddon Mummy Case' (A1415-0, also A8276-0)

Recorded as 'The Gliddon Mummy Case' in one ledger entry, A1415-0 is a fragment of a lid from a cartonnage coffin. It is dated to the 26th dynasty (664–525 BCE) and reportedly was found in the Saqqara necropolis west of Cairo. (Fig. 1). The fragment is from the lower part of the lid, covering the lower legs of the mummy. The decoration of the lid fragment includes both images and text. To the far left and right (the sides of the lid), stand female figures in tightly fitted sheath dresses in the style of the Old Kingdom (c. 2663–2195

BCE). Each holds a staff in one hand and the 'ankh'-life sign in the other. Their names, written above them, **Isis** to the left and **Nephthys** to the right, identify the women as the sisters of the god **Osiris**, credited with reassembling his limbs, enabling his resurrection. The middle is occupied by seven columns of texts.

The piece was acquired by the National Institute in 1842, in a group of about 50 items, most likely as a purchase, from **George Robins Gliddon** (b.1809, England—d.1857, Panama). In the *Third Bulletin of the Proceedings of the National Institute* (p. 231) it is described as "One piece of a beautiful mummy case I found the Arabs about to burn at Saccàra. I was not in time to save the rest, beyond half the cover." The fragment was cut into three pieces and distributed among the National Institute, the Naval Lyceum of Brooklyn, and a Mrs. Ward of New York. The Naval Lyceum piece was installed in its museum and described as "a piece of a mummy case fashioned ... out of layers of papyrus." After the dissolution of the



Fig. 1. A1415-0 re-drawn from Pickering 1869

Lyseum in 1888, the museum inventory was passed to the U. S. Naval Academy Museum (USNAM) in Annapolis, where that fragment is on display today. The USNAM piece joins with A1415-0 along the latter's upper edge, extending the text columns. The uppermost section, presumably the piece given to Mrs. Ward, is still missing (Figs. 2, 3). A complete coffin found in the Musée des beaux-arts in Grenoble, France (MG 1996), provides an opportunity to reconstruct the coffin from which the Gliddon lid was taken. Measuring 188 cm. in length, it displays the same brightly colored hieroglyphs on a white background found on the Gliddon fragments, as well as the same side images found on the USNAM piece.

The Gliddon lid fragments are most closely linked to the Grenoble coffin by the hieroglyphs themselves, each formed as realistic pictures of the birds, baskets, human faces etc. that make up the writing system. The almost identical character of the signs from the Gliddon fragments and the Grenoble coffin suggests that the two coffins may have originated from the same workshop, and, perhaps, came from the same find, particularly as the Grenoble coffin arrived in France as a private acquisition in 1842, the same year that A1415-0 was acquired by the National Institute. The name of its owner, **Psametik**, also found for three kings of the 26th dynasty, confirms the stylistic dating.

George Robins Gliddon (1809–1857)

George R. Gliddon who brought the lid piece to the US in 1842 had spent his boyhood in Egypt where his father was the American consul, a position that young George later assumed. As a teenager, he facilitated travel arrangements for the earliest American tourists. Later on in the 1830s, he would arrange the export of

mummies and sailed for New York in January 1842, primed to set himself up as the preeminent expert in all things ancient Egypt.

Gliddon made his living lecturing on his chosen subject around the U.S. for the next decade. In 1849 he upped his game with the creation of the ‘Panorama on the Nile’. This involved the display of a series of images, printed on a large roll of thin canvas and illuminated from behind, allowing his audience to experience a journey down and up the Nile, visiting all the major monuments. He incorporated lessons in hieroglyphics, the display of antiquities and the unwrapping of mummies, stretched out over several days, all with a mix of ‘oriental’ music in the background. The audiences were large and enthusiastic.

All went well until the unwrapping of an advertised Egyptian princess, the “lily of the Nile,” revealed itself to be decidedly male, giving the newspapers an opportunity to poke fun at the high-minded lecturer. Recovering from this embarrassment, a ventriloquist,



Fig. 2 USNAM 1892.001.152. Drawn from a photo provided by curator Grant Walker

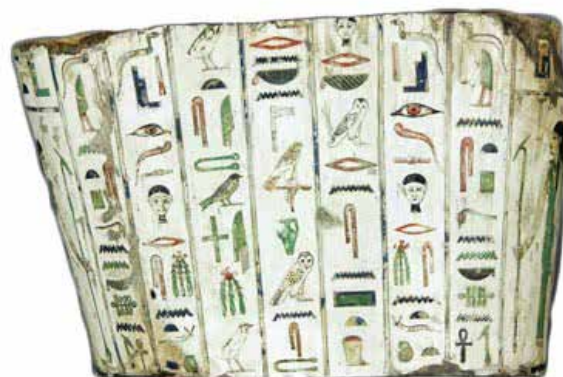


Fig. 3. Coffin of Psametik (Musée des beaux-arts de Grenoble, Inv. no. 1996.

antiquities for American travelers, such as **Mendes Cohen** (1796–1879), whose collection is now found in the Johns Hopkins Archaeological Museum. In 1840, the U.S. government closed all consular offices in the Ottoman Empire, and Gliddon was out of a job.

Once back in England, Gliddon produced a pamphlet which criticized the treatment of Egyptian monuments, and he is remembered for being among the first to express this concern.

Looking for new ventures, he submitted plans for an overland route to India as well as considering ways to capture and transport a hippopotamus to the United States. Lacking success in these projects, Gliddon packed his bags loaded with Egyptian antiquities and

speaking for the mummy, was added to the entertainment, possibly inspired by **Edgar Allen Poe’s** “*Some Words With A Mummy*” from 1845, said to be influenced in part by some of Gliddon’s writings. The Panorama’s last stop was New Orleans in March 1852, after which efforts were made to sell the canvas roll piecemeal, while some of the mummies found a home in what became Tulane University.

From New Orleans, Gliddon relocated to Mobile, Alabama where he met up with Dr. **Josiah C. Nott**, a slave-owner who dedicated his writings to the vindication of slavery. The two men shared a belief in polygenesis, the contention that humankind had several lineages, advanced by Gliddon’s close friend Samuel Morton. During Gliddon’s time in Mobile, he

collaborated with Nott, Morton and others on *Types of Mankind* (1854), arguing that the different ‘races’ were created by God for specific geographic regions. While not claiming superiority for one race over another, it proposed a biological differentiation related to the place of origin. This was followed by *Indigenous Races of the Earth* (1857). Edited by Nott and Gliddon, the contributors take the next step, presenting arguments for the hierarchy of the races. These publications were popular contributions to the pro-slavery cause and stayed in print long into the 20th century.

In 1857, needing new challenges and, most likely, income, Gliddon accepted a position as Deputy Agent of the Honduras Inter-Oceanic Railroad Company. Joining a group of Philadelphia railroad men, he became involved in a plan to cut through the land



Fig. 4. Hieroglyphs from A1415-0. The owl, read ‘in’ or ‘as’; the face read here as ‘Horus’ also ‘on’ or ‘over’; the swallow read ‘great’

mass joining the two Americas, a precursor to what became the Panama Canal. He arrived in Honduras in April of that year but some months on had contracted yellow fever while in Panama. Gliddon died there in November 1857, age 48, not of the fever but of an overuse of the cures of the day, laudanum and opium.

Mummies On exhibit

As Gliddon was considering a move to Honduras, the brightly colored piece of a coffin lid that he had brought to the National Institute was resting in an exhibition case in the Old Patent Office (now the SI

National Portrait Gallery and American Art Museum). It is described as a ‘King’s sarcophagus, covered with beautiful Egyptian figures’ in a privately printed guide. On May 11, 1858, some six months after Gliddon’s passing, **John Varden**, who had become caretaker of the collection, writes in his journal ‘cleaning and changing Gliddon’s Egyptian specimens.’

In 1861, as the National Institute merged with the newly created Smithsonian Institution, the Patent Office exhibit was packed up, and “45 wagon loads of collections, specimens of Natural History, casts, books, etc. property of the National Institute [were] transferred from the Patent Office” (from a notation for the catalog cards). A1415-0 was in this load and included in accession no. 135, covering the transfer. The first ledger registration of the Gliddon piece is from 1861 and reads ‘1415’ ‘part of cover of Egyptian sarcophagus’ (Vol. 001A, p. 057). Some time later, the piece is registered again as ‘8276’ ‘The Gliddon mummy case, Saccarah, Egypt collected 1842’ (Vol. 002A, p.192). It is this number that can be found, faintly written, on the back of the fragment.

The ‘Gliddon Mummy Case’ fragment has been included in every exhibit of Egyptian artifacts in the 20th and, thus far, 21st century. It is described as sharing a display case with the obelisk model donated by **Theodore Roosevelt** in the 1922 exhibit. Examining it in 1939, **John Cooney** of the Brooklyn Museum declared ‘it is probably not earlier than the 26th Dynasty’. His successor, **Robert Bianchi**, some 40 years later, noted the resemblance to the Petosiris coffins from the 4th century BCE, suggesting that date. By then, Nesihor’s coffin lid fragment had been installed in the Western Civilization exhibit (c. 1976–2009), where I first saw it. Today, securely dated to the 26th dynasty (664–525 BCE), it can be seen as part of Eternal Egypt (2011–), placed next to a small, inscribed fragment of a statue base (A1421-0), reuniting it with another object from Gliddon’s collection.

Intersections

This survey of the ancient and modern history of the coffin lid fragment highlights the dynamic nature of the objects found on exhibit and in magazine drawers. They not only provide a glimpse of the past, but also confirm common themes that connect the past to the present. The Egyptians sought ways to deal with competing cultural identities, introducing in their monumental presentations, images and words produced by generations very long beyond memory. The story of George Gliddon highlights the perennial need to ‘market’ the ancient past, while underlining the attitudes of his time that continue to plague our present.

Objects featured in exhibits ‘live’ through changing times and in their presentation can, in the best of circumstances, confirm the commonality of the human experience.

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DISCOVERING MARITIME NATIVE AMERICA: A HALF CENTURY OF SMITHSONIAN RESEARCH

By Ted Timreck

This is a story about how science works. Over the last 45 years I've had the grand opportunity to document some of the fieldwork and just as significantly, some of the evolving ideas of a group of Smithsonian scientists—researchers who maintain their deep individuality even as they work within a matrix of shared parameters. Looking into this process as a journalist through the medium of the moving image—not as a professional archeologist—has offered a perspective that shows scientific, anthropological communication to be a highly disciplined and a relatively personal art form. The most successful

beliefs about where humanity comes from (and this goes back to at least the *Bible*) depend on how good the communicated story is.

My story is a reminiscence about three archeologists who worked on the same floor of the Smithsonian's National Museum of Natural History but managed, with strikingly independent efforts and a healthy amount of differing opinion, to formulate three major steps that have pointed the way to a better understanding of the lost history of Indigenous Eastern America.

William Fitzhugh and the Labrador Maritime Archaic

In the late 1960s **Bill Fitzhugh** began exploring the far reaches of the North Labrador Coast, discovering the northernmost traces of early Eastern Native Americans. First documented by scientists in the 1880s, the mysterious, red ochre burials found along the coast of Maine gave rise to the myth of the Lost Red Paint People in northeastern North America. Long considered and dismissed as ‘fantastic archeology’ by the profession, it was a hundred years after their first discovery that researchers like **James Tuck** from Newfoundland's Memorial University established the scientific existence of an advanced Native culture in the Canadian Maritimes. Tuck suspected these peoples were connected to the sea but gave them the ambiguous name ‘Maritime Archaic’, perhaps denoting both their possible ocean adaptation and their existence in the Canadian Maritimes as early as 3,500 years ago.



Fitzhugh aboard the Smithsonian's research vessel Tunuyak in Nulliak Cove

Fitzhugh and his team from the Smithsonian's Arctic Studies Center extended the search for this civilization north along the shores of Labrador, and by the 1980's he confirmed that beginning around 7,500 years ago, this sophisticated Native culture had settled in several locations extending almost to the Arctic Circle, achieving a major florescence around 4,000 B.P. Fitzhugh's team was the first to find the remains

of Native house foundations near ceremonial burials. He and his crew proved that along with their red ochre burial practices and their construction of ceremonial stone landscapes, these people were adapted to ocean travel in large dugout boats and navigated over great distances along the Atlantic Coast. This was a vision of Archaic Eastern Native America that wasn't to be found in the anthropology textbooks of the time.

The implications of Dr. Fitzhugh's work on the Torngat Project were astounding. To introduce the vision of an ancient, ocean adapted, Eastern Native civilization that might best be compared to the well-known sea cultures of the Northwest Coast was a concept that did not fit with the established beliefs of professional colleagues. When I first got to know Bill, documenting the excavation work with his team at the Nulliak site in northern Labrador, we were once sitting at the edge of the steeply raised beach terrace and he told me that the real question was, "Where did these people come from."

As a journalist filmmaker, I had originally approached Bill in 1979 without any formal academic training in anthropology but with a self-taught interest in the suspect topic of American Antiquarianism, which always seemed to brush the world of 'fantastic archeology'. My interest in antiquarian history never made me popular in the profession, but Bill's level of tolerance for my investigation into the origin question he posed has always been a key encouragement, and over 40 years we have been able to watch the slow scientific evolution of this radical concept in Native American history.

Years of research along the Labrador coast offered the proof. Perhaps Bill's childhood summers in Cape Cod and background in the U.S. Navy gave him the perspective to be able to suggest the first scientific glimmer of the deep ocean-adapted Eastern Native culture that once existed along the North Atlantic Coast. This was a first step toward recognizing how different and how important this new chapter might be. But in the 1980s the anthropological academy wasn't ready to accept the possibility of such a radical revision of Indigenous American history because there were no acceptable theories or proofs about how such a Native civilization could exist.

Stephen Loring and the Ramah Chert Fluted Point

Stephen Loring worked with Bill on the Torngat Project, and together with their ASC team they discovered the Ramah Chert quarries in far northern Labrador. Ramah Chert is a beautiful, distinctive, and easily worked stone material that the early northeastern Indians along the Atlantic Coast used to make their tools. Archeologists were aware of this unusual tool-



The Ramah chert fluted point from the shores of glacial Champlain Sea

stone from the time of its discovery in the earliest Red Paint burial finds in Maine, but they had no idea where it came from until Fitzhugh, Loring, and the ASC crew discovered in Ramah Bay, northern Labrador, the only place on earth where this distinctive stone can be obtained.

In the early 1970s, before Loring began working with the ASC in Labrador, he had been hired by the State of Vermont to document collections of Native projectile points that local farmers had found on their land. During this study he identified about 30 Paleoindian points with their characteristic fluted base. Thirty years after his Vermont survey, Loring was reintroduced to one of the fluted paleo points found along a high beach terrace of the ancient Champlain Sea in Western Vermont that looked like it was made of Ramah Chert. He spent the next couple of years having the material tested in the laboratory, and it was determined that the point was indeed Ramah Chert and had been made by Paleoindians 10,000–12,000 years ago. This was one of those magnificent, accidental discoveries in science that Loring has referred to as a "smoking gun". The fluted point indicated that, although found in Vermont on the raised shoreline of an Ice Age sea, the point or the raw material had been transported from the Ramah Chert quarries in northern Labrador during Paleolithic times.

This was another major step toward uncovering the never-imagined history of Eastern Native America, showing that Indian people navigated the North Atlantic coast during the Ice Age. The find opened a new chapter of the Indigenous narrative—the Paleo-Maritime. The implications of this accidental but major discovery added urgency to the realization of how much Native history was still unknown.

Dennis Stanford and the Atlantic Shelf

Dennis Stanford directed the Paleoindian Program at the Smithsonian's Museum of Natural History from the mid-1970s until his death in 2019. His laboratory was



The Cinmar biface dredged up near the edge of the continental shelf

next door to the Arctic Studies Center. I met Stanford soon after his arrival at the Smithsonian, and we became friends when we were working together on an anthropological television series produced in Boston. Through the last half of the 20th century, Stanford, along with the Smithsonian's huge collection of Paleoindian artifacts he curated, may have been the most powerful forces gatekeeping the accepted history of the American Paleolithic. Dennis was part of the wave of researchers who defined our vision of the 'Clovis First' Paleoindian. These scientists built the Paleo story of the Beringian land migration and shaped the anthropological image of the Paleo hunter-gatherers almost like they saw themselves, as the modern inheritors of the Western environment and its rugged life-style. Over many years and many conversations, I watched a remarkable transformation take place in Stanford's thinking.

Throughout much of his life Dennis pursued the 'Siberian migration-Clovis first' hypothesis. He did research in the American West, Alaska, Siberia, and China. After years of investigation, he came to the conclusion that the stories of Native American roots in the Western Hemisphere were more complicated than the accepted theories. Around the turn of the millenium, as the idea of boat migration along the Pacific Coast of North America was gaining traction, Stanford was researching environmental information about the Ice Age Atlantic Ocean and discovering the true depth of early Clovis and pre-Clovis occupation along the Mid-Atlantic shore. Remarkably, for a man who the Academy believed was a staunch supporter of the accepted Clovis hypotheses, Stanford began pointing to a different chapter in the lost, Native history of the Atlantic Coast, working in the truest scientific tradition of evidence-based deduction and common sense.

Then in 2008 he was introduced by his associate, **Darrin Lowery**, to a stone biface that had been sitting unnoticed in a small, Maryland museum. The blade was dredged up along with a complete mastodon skull from

the floor of the Atlantic about 40 miles off the coast of Virginia in the 1970s.

The mastodon tusk dated to more than 20,000 years ago, and ever since, the Cinmar blade has been extraordinarily controversial in American archeology. No matter how the science shakes itself out, the discovery by Stanford and his team points to the important fact that the future and deeper understanding of Eastern Native history will come from this type of discovery along the now-submerged Atlantic shelf. Stanford's work—a lifetime of testing the accepted theory and then moving beyond to ask deeper questions, will probably serve to solidify future researchers' attempts to understand how the Atlantic Ocean affected the ancient history of North America.

Was it a coincidence that these three amazing discoveries (although perhaps not well-heralded by the profession but each worthy of its own Eureka) were accomplished from the same floor of the National Museum of Natural History? Over the last half century, these three discoveries, made by decidedly independent researchers, combined with the dedicated efforts of their Smithsonian teams and technical associates, have opened a new frontier in American anthropology. Each discovery had an unusual aura of independence from the others and was accomplished in a different time frame without specific collaboration between the principals.

Perhaps it was just in the air, but Fitzhugh's confirmation of an Archaic Native sea culture with far ranging navigational abilities set the stage for a new understanding of Indigenous history along the North Atlantic Coast. Loring's Ramah Chert fluted point discovery and his persistence in tracing its route from Labrador to the Great Lakes and south along the coast to the Carolinas showed the extent of Indigenous trade and pushed the origins of this cultural florescence back into the Ice Age. Stanford's change of emphasis from Western Paleo to the Atlantic and the amazing offshore discovery of the Cinmar blade has pointed the direction to where future research and excavation may be most conclusive. This half century of both persistent research and serendipitous discovery shows the evolution of the modern scientific method and highlights the need for a better awareness of the personalities and histories that shape the process of discovery and the academic acceptance that gradually follows.

*[Editor's note: **Ted Timreck** has been documenting Smithsonian archaeological work since the mid-1970s. His work can be seen in NOVA productions like *The Mystery of the Lost Red Paint People*, and the forthcoming *Ancient Sea Peoples of the North Atlantic*.]*

THE FORTEAU BAY-5 GROS WATER SITE, SOUTHERN LABRADOR

By *Sophia Field*

Labrador serves as a bridging zone between the arctic and subarctic regions. Both marine and terrestrial resources are accessible, creating a contact zone in which different cultures could interact and benefit from multiple environments. During cold climatic periods the Labrador Current brings Arctic marine conditions as far south as Newfoundland and the Gulf of St. Lawrence. This occurred during the sub-boreal period, when Groswater Paleoeskimo culture became the first Inuit culture to reach these Subarctic regions. Research in Labrador and Newfoundland has revealed Groswater to be a transitional phase between Pre-Dorset and Early-Dorset Paleoeskimo/Inuit cultures (Fitzhugh 1972, 1976).

Groswater is a descendant of the Arctic Small Tool Tradition and was present on the coast of Labrador, the Quebec Lower North Shore, and Newfoundland between 2800 and 1800 BP (Renouf 2011). Groswater is characterized by a diverse collection of microliths having a variety of functional and typological tool types. Bifacial tools like side-notched points, sideblades, endscrapers, and burin-like tools are present along with soapstone lamps and a multitude of microblades. Other tool industries common in Dorset, such as slate, are not well represented; bone tools are rarely preserved due to high soil acidity.

While faunal remains are rarely preserved at Groswater sites in Labrador, their presence in Newfoundland's limestone soil indicates that their economy varied by season, with sealing (particularly of harp seals) and caribou hunting occurring in the winter and spring, and egg collecting, bird hunting, fishing, and berry collecting in summer (Fitzhugh 1972). This is similar to Dorset culture as well as the historic Labrador Inuit, except for the latter's whale hunting ability. Previously described sites, such as East Pompey Island and Ticoralak, suggest domestic settlement patterns in which both inner and outer coastal zones were used for a variety of summer activities, including hunting, production of stone and bone tools, and skin working. The large Postville site offers insight into the social organization of Groswater culture as its excavation revealed a total of nine structures. These structures indicated that the group's largest social unit consisted of several closely related family groups during the winter season (Loring and Cox 1986). Other prominent sites, notably the Phillips Garden site in Port au Choix, Newfoundland, supported seasonal winter-spring occupations, multi-

family social organization, and demonstrated a gradual amalgamation of Groswater Dorset and early Dorset around 1800 BP (Renouf 2011).

Previous Archaeological Research

Forteau Bay is located on the Labrador shore of the Strait of Belle Isle. Forteau Bay 5 (EiBf-1) was originally collected in 1949 by Elmer Harp before Groswater was recognized as a distinct culture. Harp (1951) described it as significantly eroded in an area of "poorly-stabilized dunes" with "deep systems of blowouts". Harp also mentioned it as a future publication in his Boreal Archaic paper in 1963, but he never got around to it, and toward the end of his life gave the collection to Fitzhugh, recognizing its similarity to Groswater sites in Hamilton Inlet.

Summary of Artifacts

The artifacts from Forteau Bay 5 include side-notched endblades, burin-like tools, microblade cores, bifaces, ovate sideblades, endscrapers, and utilized flakes. Microblades (.4) and utilized flakes (.31) are most common. Many of the microblades, as well as sideblades, are fragmented, suggesting that they were discarded due to use or breakage. The site lacks artifacts common in later Dorset culture, such as tip-fluted triangular end-blades, double side-notched points, soapstone pots, and ground slate tools, as well as any evidence of dwelling structures. The "box-based" points as well as the smaller microlithics, including characteristic ground and spalled burin-like tools, notched microblades, flared endscrapers, and ovate sideblades are consistent across Groswater Dorset lithic assemblages.

Table 1. Average Measurements of Forteau Bay 5 artifacts

	Average length (mm)	Average width (mm)	Average weight (g)
Point	30.5	14.55	1.95
Biface	28.55	27.2	6.4
Sideblade	22.18	15.6	0.92
Endscraper	25.8	20.4	5.25
Burin-like tool	28.1	15.07	1.93
Microblade	20.93	9.94	0.94
Utilized flake	21.47	14.13	1.24

Materials

Gray, tan, mottled, and green chert comprise 56 of the 67 artifacts (.84). Five artifacts (.07) are made of Ramah chert and six (.09) are of quartz crystal. Quartz crystal is commonly found in Labrador and is used for microblade production along with chert cores. Ramah chert is a distinctive, semi-translucent gray stone originating from quarries in Northern Labrador and is widely traded in Northeastern North America. Ramah chert was not a main facet of Groswater Dorset lithics but later became the dominant material in Early, Middle, and Late Dorset technology.

Comparisons

Collections from East Pompey Island and Postville are the largest Groswater Dorset sites known in Labrador. The Postville site is from the late Groswater Dorset period and contains higher amounts of Ramah chert than other Groswater Dorset sites, making up 35% of the 1,966 artifacts while other chert types make up 56% of the artifacts (Loring and Cox 1986). The Phillips Garden site of Port au Choix, Newfoundland, is significant for Groswater Dorset presence in Newfoundland and offers a wealth of information, defining the “Phillip’s Garden West Phase”, which, as a later stage of Groswater, has several typological differences in artifacts compared to Forteau Bay. These differences include the use of colorful Cow Head cherts, parallel flaking, surface grinding and polishing, and fine edge serration (Renouf 2011).

Table 2 compares Groswater sites from East Pompey Island, Ticoralak, and Red Rock Point. Microblades and utilized flakes are most represented; chert, Ramah chert, and quartz crystal ratios are consistent across the sites.

[Sophia Field conducted this research while serving as an ASC intern from University of California–Davis in the spring of 2023.]

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Table 2. Comparison of Groswater Phase Sites in percentages (Fitzhugh 1972)¹

	Point	Biface	Side blade	End scraper	Burin-like tool	Micro-blade	Utilized Flake	Other	Total Tools	Debitage
E. Pompey	.02 (10)	.03 (14)	.01 (3)	.01 (2)	.01 (5)	.52 (220)	.35 (149)	.05 (22)	425	5520
Ticoralak 2	--	.14 (3)	--	--	.04 (1)	.68 (14)	--	.14 (3)	21	51
Tic; 2E	--	.14 (1)	--	--	--	.72 (5)	--	.14 (1)	7	6
Ticoralak 3	.04 (3)	.15 (11)	--	.01 (1)	--	.45 (35)	.27 (21)	.08 (6)	77	1261
Ticoralak 4	--	--	--	.25 (1)	--	.75 (3)	--	--	4	30
Ticoralak 5	.03 (3)	.04 (4)	.04 (4)	--	.04 (4)	.63 (69)	.17 (19)	.05 (5)	108	856
R.Rock Pt2	--	.19 (5)	--	--	.11 (3)	.47 (12)	.18 (5)	.05 (1)	26	--
Forteau 5	.1 (7)	.03 (2)	.07 (5)	.03 (2)	.04 (3)	.4 (27)	.31 (21)	--	67	--

¹Several sites, such as Ticoralak 2, 2E, 4, and Red Rock Point 2, have very few artifacts, reducing their use for comparative purposes.

EXCAVATIONS AT ADUUN ORDON IN THE MONGOLIAN GOBI

By Christina Carolus, Asa Cameron, Bukhchuluun Dashzeveg, and William Honeychurch

An unrecognizable scene greeted the Shiriin Chuluu Archaeological team upon our return to the Shiriin Chuluu area of Dornogovi Province, southeastern Mongolia, in 2022. In average years, the dramatic, arid nature of the Gobi-steppe strikes the visitor as akin to **Charles Bonestell's** famous *Study for a Lunar Landscape* (1957) with its xerophytic environment that has likely been in place since the Late Holocene (c. 4000 BP). Shiriin Chuluu is defined by the visually striking stacked granite formations to which the area may in part owe its local name, “chuluu” translating as “stone”. Visible at great distance amidst a sea of rolling steppe, these formations have served as a transhumant waypoint and locus of mortuary activity for millennia of Gobi inhabitants. Yet as we approached Shiriin Chuluu, the expected terrain of granite peaks and barren expanse presented something outrageously different: a verdant, rain-fed flood of life.

This year represented a season of both renewal and change—the return of international collaboration after several years of global pandemic restrictions and new research directions. This season marked the beginning of excavations at Aduun Ordon, a well-preserved cave site with long term occupation (Figs. 1, 2). Mortuary contexts dating from the Late Bronze Age (c.1500–1000 BC), Early Iron Age (c.1000–400 BC), and Xiongnu Period (c.250 BC–150 AD) have been studied in the Shiriin Chuluu area since 2018, while habitation sites from these periods were absent from the archaeological record. Our primary goal was to locate and investigate habitation sites that would be coeval with, or post-date, the arrival of pastoralism. Investigation of Aduun Ordon is intended to address the lacuna in knowledge of practices associated with daily living, including subsistence, lithic and craft production, and other domestic activities.

One of two cave sites exhibiting painted red ochre art, Aduun Ordon is a shallow cave measuring approximately 20 square meters that provides protection from wind, sun, and rain. Its interior space has been used by herd animals as a shelter, and local residents cannot not recall a time of human use. It opens on the southern side of a granite outcrop and is framed by natural “lintels” covered in many places by red ochre paint smears and images. The drawings and occasional pecked images depict abstract faunal, human, and geometric figures (Fig. 3) and show affinities with broader artistic traditions in Gobi-



Fig. 1. Horses using the site as protection from heat and summer sun



Fig. 2. View of the site facing north

Altai and southern Siberia. Depicted fauna include both domesticate species (e.g. horses) and wild species such as ibex (*Capra sibirica*). To the authors' knowledge, Aduun Ordon is one of only a few recorded southeastern Gobi sites with painted cave art. Most other examples are in north-central Mongolia and western Altai.

We opened 10 square meters, excavating in eight arbitrary levels, to a depth of approximately 90 cms. The first level was a compact 15 cm layer of desiccated livestock dung, below which we dug in 10 cm levels using a total station and LiDAR photogrammetry. We recovered a wide range of artifacts, some of which are rare except in burials. Finds included personal items such as faunal tooth pendants and a dozen Late Bronze Age and Early Iron Age beads made from various materials (one was a bronze bead, possibly the earliest recorded in Mongolia), remains of ceramic tripod vessels, butchered and burnt faunal remains



Fig. 3. A selection of painted and pecked images recorded at the site

(primarily livestock), textiles, leather products, seeds, paper fragments, birch bark, sheep/goat scapula with written script, and an array of metal remains of brass, iron, bronze, and copper. Numerous hearths were found throughout the sequence.

In upper levels we identified a religious shrine containing Buddhist and shamanic paraphernalia. The shrine area was near the back wall and included several objects depicting Buddhist figures in clay and gilded wood. The shrine was surrounded by manuscript fragments with Mongol and Tibetan texts, silk and wool textile fragments, a Mongol period iron arrow, small porcelain offering bowls, red lacquered wood fragments, and iron nails. It also included small stone-encircled ritual offerings of horse teeth, pine nut shells (*Pinus sibirica*), wheat (*Triticum aestivum*), and hundreds of miniature clay votive “stupa” offerings arranged in circles or lines. These materials are currently being analyzed by an expert in Buddhist material culture at the National University of Mongolia.

In levels 5 through 8, Buddhist materials gave way to earlier material cultural traditions, beginning with a limited amount of Kitan wares. Below this were hundreds of sherds with carbonized food residues used as cooking vessels (Fig. 4). Most exhibit design features from Late Bronze Age through Xiongnu times. We confirmed these estimated dates with AMS radiocarbon dates on food-crusts from five sherds



Fig. 4. Ceramic artifacts mentioned in text. Items 1-5 yielded AMS radiocarbon food residue dates from the Late Bronze Age (c.1400 cal BC) to Early Iron Age (c. 800 cal BCE). Item 6 is a tripod leg estimated to date to the Late Bronze Age

recovered in levels 7 and 8, indicating the lower levels were occupied from 1393–774 BC.

Thousands of butchered and burnt faunal remains found throughout the sequence are currently under analysis. They span a range of herd species known to the area: cattle (*Bos sp.*), horses (*Equus caballus*), sheep (*Ovis aries*), and goats (*Capra hircus*) and fall within various age classes. Selected identified finds have been submitted for AMS radiocarbon dating as well as stable and radiogenic isotope analysis.

We also documented hundreds of lithic artifacts from the lower levels, including a variety of bifacial point types, as well as microblades, microblade cores, thumbnail scrapers, and a burin. Lithic technological change in Mongolia from the Neolithic through Xiongnu is an active research topic among archaeologists. Finds at Aduun Ordon may shed light on this trajectory, particularly on changes in lithic production from Late Bronze Age through Xiongnu, where secure stratified data are sparse.

As we prepare for excavations in 2023, we anticipate evidence of earlier occupation in the Bronze Age (c. 3000–1000 BCE) and possibly the Neolithic (c.7000–3000 BCE) or Late Pleistocene. The type of long-term occupation is rarely found in Mongolia and almost completely absent for the Gobi-steppe region. Results from Aduun Ordon should provide much needed data concerning the arrival of mobile pastoralism. We are optimistic about the site’s potential to clarify long term diachronic changes in daily practice and social organization leading to the Xiongnu Period and the emergence of the first nomadic empire in Eastern Eurasia.

COLLECTIONS

THE FOSCO MARAINI IKUPASUY COLLECTION

By Aubrey MacKenzie and Christopher B. Lowman

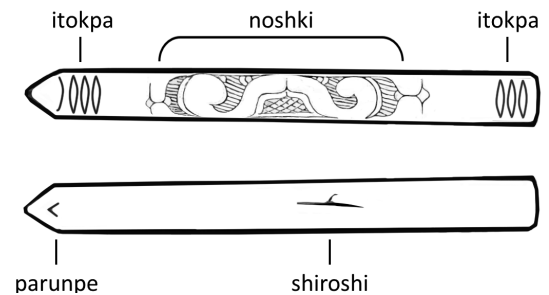
Many museums in the U.S. house collections of objects created and used by the Ainu, the Indigenous people of Northern Japan. Through a combination of long anthropological interest, tourism, and Japanese policy, some of the oldest and most ornate Ainu objects are today located outside Japan in places like the Smithsonian Institution's National Museum of Natural History, the American Museum of Natural History in New York City, and the Brooklyn Museum. Other collections remain in private hands. One private collection, consisting of 32 Ainu objects, surfaced late in 2022 at an auction in Paris. Tracing its history provides a window into the creation of Ainu collections and suggests future work that can be done to tie them to their communities of origin.

Ainu homelands encompass Hokkaido, Sakhalin, the Kuril islands, and the Tohoku region of Honshu, although today most Ainu live only on Hokkaido. For centuries, the Ainu maintained extensive trade networks with Japan, Russia, China, and other Indigenous peoples around the Sea of Okhotsk. Trade items like metal and lacquerware became deeply embedded within Ainu everyday practices. Conflicts and later forced assimilation efforts by the Japanese government led to restrictions on Ainu trade, religion, and language. Despite this, many Ainu people have continued to adapt and preserve their culture.

After the 1868 Meiji Restoration, Western travelers and anthropologists observed changes in Ainu everyday life occurring because of Japanese policies and the rapid spread of imposed forms of agriculture and industry. Unfortunately, these outside observers conflated change with the assumption that Ainu people themselves would inevitably vanish. This belief fueled extensive collecting by travelers and museum-sponsored expeditions (Fitzhugh 1999). Due to this salvage ethnography approach, collectors often focused on Ainu-made objects, ignoring items obtained through trade despite their importance for the Ainu themselves (Lowman 2018).

Collectors especially desired items used in Ainu religious practices. Traditionally, Ainu believe in many spiritual beings (*kamuy*), whom they worship and describe in poems, sagas, and stories (*yukar*). *Kamuy* differ by region and among individuals but can be both living and nonliving things such as

animals, plants, mountains, rivers, and tools (Yamasaki 2018). Communication with *kamuy* involves material intermediaries like *ikupasuy*, sacred flat sticks carved with meaningful and decorative designs. *Ikupasuy* would be dipped into a cup (*tuki*) containing rice wine and then used to scatter droplets of liquid as offerings to *kamuy*. Due to their ritual importance and unique carvings, they were prized personal items. Ainu activist **Shigeru Kayano** described *ikupasuy* as “a living thing with a soul” (Kayano 1978:241-44). Most *ikupasuy* are about the length and width of a ruler. No two are identical, but many share similar patterns and motifs, especially in the central design (*noshki*), and often included stylized designs of the orca whale *kamuy* (*Repun-kamuy*). Some carvings related to the individual, such as repeated marks called *itokpa* on one or both ends or personal insignia on the underside called *shiroshi*. Other marks were functional: a small notch at the tip of the *ikupasuy*, called a *parunpe*, allows the stick to communicate prayers. The “anatomy” of an *ikupasuy* can be seen below.



Until the late 19th century, Ainu rarely parted with *ikupasuy*. The travel writer **Isabella Bird** recorded in 1881 that it was “not [Ainu] custom” to part with them. Over time, Ainu increasingly sold their *ikupasuy* to Japanese and Western collectors, in some cases driven by increasingly difficult economic circumstances. Shigeru Kayano remembered how, during the 1930s, collectors came to his village specifically seeking Ainu utensils (Kayano 1994). Perhaps no foreigner collected more *ikupasuy* in the 20th century than the Italian ethnologist, writer, and photographer **Fosco Maraini**.

Maraini arrived in Hokkaido in 1938, supported by a Japanese grant for international students which he used to study Ainu culture. He visited Ainu villages (*kotan*) to collect material, staying for days or weeks. He collaborated with missionary and author John Batchelor, who often served as a guide to visitors from Europe and the United States, even facilitating transactions between the visitors and the Ainu (Poster 1999). In just a few years, Maraini acquired an extensive collection.

After the outbreak of World War II, the Japanese government interned Maraini and his family alongside other Italians in Japan. Maraini's Ainu materials at the time numbered 500 objects (Maraini 1999a:420). To safeguard his collection, Maraini turned to his friend **Jean-Pierre Hauchecorne**, who offered to store them in the cellar of the French Institute of Culture in Kyoto. Hauchecorne shipped the Ainu collection back to Italy following Maraini's release and subsequent return home (Maraini 2001:161-196). Maraini later donated this collection to the Museum of Ethnology and Anthropology in Florence. However, the inventory at the museum shows only 468 Ainu objects attributed to Maraini. That leaves about 32 Ainu objects unaccounted for.

Jean-Pierre Hauchecorne died in 1995, and his wife passed away in 2013. Their children inherited the estate, and in late 2022 they sold the art collection

from Japan proper once a year to lacquer them" (Kayano 2006, 42). Others retain natural wooden surfaces. The patterns range from abstract to naturalistic motifs such as animals. One prayer stick shows six three dimensional birds across the noshki. Another has been broken at the midpoint and expertly repaired using wooden pegs and indigo-colored thread. A handful have *shiroshi* marks which are similar to *shiroshi* that appear on other *ikupasuy* collected by Maraini. Their decorated high-relief carvings and quality lacquer work match museum collections dating to the 19th century.

There is only one near match from the collection of 30 *ikupasuy* to the 120 pictured in Maraini's 1942 book, *Gli Iku-bashui degli Ainu*; however, only about 1/4 of his *ikupasuy* collection is pictured in the book. It may be that Maraini collected most of his collection after photography for his book concluded, or that he only included a subset of his collection in the book. I



The 30 Ikupasuy, photo by Christian Baraja, PIASA Auction House



Ikupasuy Details. Photo by Christian Baraja, PIASA Auction House

at auction in Paris. Included in the auction were 30 *ikupasuy*, one elm-bark (*attush*) robe, and one knife (*makiri*)—perhaps the 32 missing pieces!

At about 4:00 A.M. PST from my home about 5,000 miles away, I (**Aubrey**) was able to purchase the 30 *ikupasuy*. At the time, I had no idea that they could have once belonged to Maraini; I just knew that they were 30 of the best looking *ikupasuy* I had seen in the ~3 years I had been independently researching the Ainu.

The collection of *ikupasuy* from the Hauchecorne estate are beautifully carved with intricate, complex designs. Some have decorative paint and a lacquered surface. This may have been added by Japanese artisans after the Ainu carved them (Maraini 1999). **Shigeru Kayano** described how "Ainu asked medicine peddlers coming

(Aubrey) remain convinced that they were collected by Maraini due to the fact they came from his friend's estate. I am working with a colleague in Italy, Dr. **Sabrina Battipaglia**, to confirm.

Although some *ikupasuy* remain fixed in their display cases by thread ties, a handful have *shiroshi* marks recognizable as orca motifs of *Repun-kamuy*. These } bracket-shapes, S-curves, and lines with hooks all appear among the styles illustrated in the iconographic work of **Bronislaw Pilsudski** (1912) and Maraini (1942). Others have X-patterns associated with the bear spirit, *Kim-un-kamuy*. Several have two or more marks. According to Shigeru Kayano, "When the owner changed, a new 'family-crest' could be added in front of or behind the original one" (Kayano 2006:42). These

multiple *shiroshi* suggest age: they may have changed hands several times, potentially across generations.

The 30 *ikupasuy*, *attush* robe, and *makiri* from the Hauchecorne estate sale are “missing pieces” to multiple puzzles. First, given their recent provenance, they likely represent missing objects once in the collection of Fosco Maraini. Further documents or museum records could confirm that information. Second, by virtue of their preservation and markings, these *ikupasuy* may be over a century old or older, evidence of both trade and the passing of important objects among Ainu people. Today, many *ikupasuy* still in Japan are relatively recent, while these have the potential to reveal older techniques and craftsmanship in designs, methods of repair, and symbolic significance. Finally, when collections like these appear, they offer hope for future research and collaboration. Marks and artistic styles could help trace these objects back to their communities of origin. In Hokkaido and elsewhere, Ainu today continue to carve new *ikupasuy* and use them in important ceremonies and events. As research continues, the significance of the *ikupasuy* will likely continue to change as new connections are made.

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AN ASC/NMNH—UPENN MUSEUM COLLABORATION

By Elisa Palomino and John Cloud

An interesting research collaboration was initiated by **Elisa Palomino** as part of her continuing research on both historic uses of fish skins for clothing and accessories by pan-boreal peoples of the North. The project also studies contemporary uses and applications of fish leather and other natural raw materials as important alternatives in a world drowning in plastics. Materials 'made from nature' and derived from plants and animals return quickly to nature, so museum historical collections are important repositories of past artifacts, tools, and even techniques that might be preserved.

In December 2022, Elisa and **John Cloud** went to Philadelphia at the invitation of **William Wierzbowski**, the Keeper of Collections of the Americas, at the Penn Museum. His domain includes an extraordinary collection of fish skin artifacts, with interesting provenance. In the late 19th century, Philadelphia was at an apex of scientific research and industrial development. The city government had a Department of Commerce, and one of its activities was to send out people searching for samples of raw materials and the 'products of native industry' all over the planet, to bring them back to Philadelphia. These included now extremely rare sets of clothing and artifacts made of fish skins, leathers, sinews, bird skins, etc. The Philadelphia Commercial Museum collection included artifacts originally sent by the Khabarovsk Regional Museum for display at the 1900 Exposition Universelle in Paris, in the era of great world's fairs. After the close of the Paris Exposition, **William Wilson**, Director of the Commercial Museum, had this collection shipped



Krupnik, Fitzhugh, Palomino, and Bill Wierzbowski inspect fish skin garments at the UPenn Museum

to Philadelphia. Eventually in 1994, the city decided to disband the Commercial Museum collections, which were given to the Penn Museum.

Hence, a major collection came to the Penn Museum with minimal provenance, but there were, specifically, important sets of materials from various peoples living in the vast watershed of the Amur River in Siberia. The other museum collection we admired included fish skin artifacts from **George Byron Gordon's** 1905 ethnological expedition to Alaska, which took him down the Yukon River to the Tanana reaching the source of the Kuskokwim River, described in his book *In the Alaskan Wilderness*. In addition to the above-mentioned collections, we were also able to compare the Ainu artifacts collected for the Penn Museum by **Hiram M. Hiller**, a physician and amateur ethnologist during a trip to the island of Hokkaido in Japan in 1901. The Philadelphia materials were so interesting that in January 2023, **William Fitzhugh** and **Igor Krupnik** came to Philadelphia with Elisa and John to meet William Wierzbowski and see the collections.

In late January, William Wierzbowski travelled to Washington to visit the Smithsonian NMNH collections of fish skins collected by, among others, **Edward William Nelson**, who travelled through Alaska as a meteorological observer for the U.S. Army Signal Corps. In addition to his meteorological duties, he also collected objects for the NMNH. At the Museum Support Center in Suitland we were guided by **Stephen Loring**, **Igor Krupnik**, **Candace Greene**, and **Bernadette Engelstad**. Both visits stimulated conversations about possibilities for collaboration between the two museums. Both have rich historical collections, and contemporary initiatives for cultural recovery and revival in collaboration with modern boreal and arctic peoples. And, Washington, D.C. and Philadelphia are close, only a short Amtrak ride apart.

A MIX OF JOY AND SOLEMNITY: THE COLLAGES OF JANET KIGUSIUQ

By Richard D. Mohr

This article is adapted from Kolaj #37 (Montreal). All images courtesy of Fehleley Fine Art, Toronto. All collages are 22"x30" and were made between 1996 and 2000.

In 1996 at the age of seventy, the Inuit artist **Janet Kigusiug** (Baker Lake, Nunavut, 1926–2005), maker of drawings, embroidered textiles, and some stone carvings, began to create the only significant body of collages made in the Arctic. She composed them by affixing, with acrylic medium, vividly colored, translucent tissue-paper patches, often hand-torn, to half sheets of the high-quality printers paper BKF Rives. Among her collages are to be found some of the exquisitely rare completely abstract art works from the North.

Kigusiug took materials, methods, genres, styles, and expectations that a federally funded art instructor from the South imported to Baker Lake and adapted these to the traditional Inuit aesthetic, which has flattened shapes floating without perspective against a void.

Kigusiug's collages dislodged Inuit art's former almost exclusive reliance, when it came to subject and substance, on narrative-based representation and expanded its compass to include a subject-less beauty in need of nothing but itself. Her collages are not educational. They impart neither information nor instruction. They are not social interventions. They do not solidify identity, promote the general welfare, or hold tight the old ways.

In the latter half of the 1990s, a master printmaker from the South arrives in Baker Lake and introduces a slew of paper-based art techniques to the artists' community there—relief woodcuts, chine collé, etching, collagraphs, paper mâché, and collage.





With hands failing from arthritis and turning nearly sideways, Kigusiuk is attracted to collage, which was first introduced to her as a classroom exercise: use torn paper to create a still-life based on a bowl of pomegranates, bananas, and oranges placed in the front of the class. The effect that the novel subject, technique, and expected style had on Kigusiuk's art was startling.

Prior to her introduction to collage, Kigusiuk's artwork consisted mostly of drawings, some of which were turned by artisan colleagues into stonecut-and-stencil prints at the hamlet's craft shop. This body of work was characterized by busy, blocky forms with heavy outlining, especially for hair and clothing, all placed against a blank expanse. Usually, the drawings' subjects are robustly populated group activities—building, celebrating, traveling, hunting. Often, she filled her thick black outlines and blocky forms with intense hues, produced by pressing colored pencils hard to the paper, a task that arthritis made all but impossible for her.

After the collage exercise, people vanish from her works, and formal elements replace narrative ones. Thick outlining also vanishes. Indeed, all lining goes, replaced by usually blurry edged, overlapping luminous color fields. Finally, at the art instructor's insistence, backgrounds are now to become a vital presence in the picture rather than left the unarticulated voids of traditional Inuit drawing and of Kigusiuk's own early work. The collages were to have overall coverage of their backings. Kigusiuk's response was to fuse figure and ground.

The art instructor's numerous interventions notwithstanding, Kigusiuk's works continued in the traditional Inuit aesthetic. They read as flat, without perspective, and have all their design elements falling in the same plane, one which coincides with the surface of the work. But now with, in addition, overall coverage, overlapping translucent tissue-paper patches, and vivid,



all but pulsating color fields, they press hard towards abstraction, while conveying a mix of joy and solemnity.

Kigusiuk's collages fall into four groups. Some, in response to the overall coverage requirement, exhibit a classical 'fear of the void' and address this horror vacui by filling out the 'canvas' with scissors-cut repeating design elements. Of these, some have vestiges of representational content (say, phalanxes of dressed fish hanging from cordage to dry; others are wholly abstract (a grid of ovoids). The second broad class of Kigusiuk's collages use large swaths and blotches of hand-torn tissue-paper, presented without repetition of any shape. In these collages, Kigusiuk takes full flight. Again, some have vestiges of representational content—hints of landscape—while the remainder are total abstractions.

In all of the collages, color operates independently of representation. Lakes can be black or bright green or brown or red. The flesh of Artic char can be its natural orange coral color or an unnatural bright, saturated blue. Generally, between four and seven colors are used, consisting most often of hues found in the Arctic, the wide range of which usually catches Southerners by surprise when they visit. In the collages that hint of representation, the unnatural use of colors associated with nature deflect their content away from depiction, verisimilitude, and materiality.

The fully abstract collages evoke luminous vapors, lyrical riffs, nimbuses without visages, and pass beyond the reaches of analysis.

Kigusiuk's collages were made sporadically over a period of four years and were her final body of work.

[Author's note: Richard D. Mohr is Professor Emeritus of Philosophy at the University of Illinois-Urbana and author of Pottery, Politics, Art (2003) and The Splendid Disarray of Beauty (2023).]

PHOTO-DOCUMENTATION AND DIGITAL MEDIA IN MUSEUM COLLECTION, ARCHAEOLOGICAL, AND ENVIRONMENTAL RESEARCH

By Alex Jansen

My recent work with the Arctic Studies Center focused on photo-documentation and digital imaging in the study of coastal archaeological site collections. I worked with Dr. **William Fitzhugh** on research, analysis, cataloguing, and inventorying 8,000 Dorset artifacts from the AD 500 Kolikhtalik site on the central Labrador coast and several other collections being sent back to Canada for permanent curation. We assembled photographic plates representing the types of artifacts found in the collection such as projectile points, end-scrappers, burin-like tools, and others. We utilized imaging to examine chipped-stone and ground-stone artifacts made from quartz, Ramah chert, chert, slate, nephrite, soapstone, and schist as well as organic materials and perishables like bone tools and rope. The use of these research tools allowed us to create a record of the collection for future researchers, to extend museum collections to the public through publication, and to highlight the technological processes used during artifact production. Photography can demonstrate technological processes that are difficult or impossible to describe in words, helping to increase understanding of native technologies for both researchers and the public. We also assembled artifact plates for several other smaller collections, which showed the broad-range of technologies employed at these locations. In addition to artifact photography, I helped document the ASC's annual Burch Lecture event.

I continue to serve as director for my research cluster, Urban Underwater Ecosystems, which is comprised of an international team of scientists, artists, and other researchers through TBA21-Academy. This group examines the urban underwater ecosystems of Venice and other coastal areas to gather information



Labrador soapstone lamp fragments. Photo by Alex Jansen

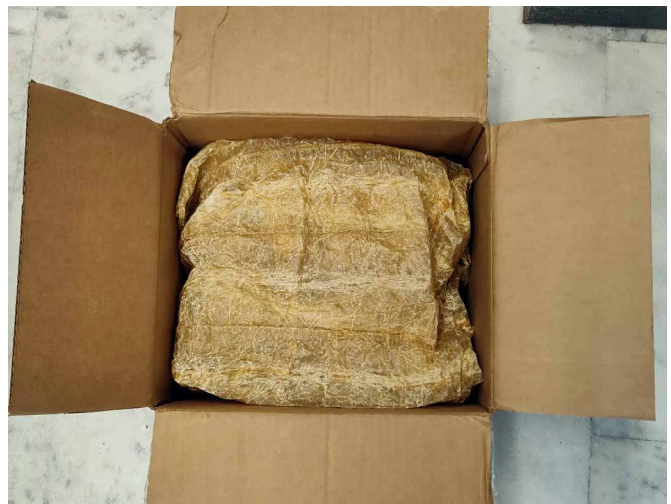
on these under-studied environments. We consider the archaeology, art history, and architecture of these cities to see how historical sciences can provide us with information on how to manage urban watersheds in the future, especially when dealing with climate change, sea level rise, and other issues. I published my new case study, "Coastal Archaeology in the Chesapeake Bay, USA—A Case Study for Ocean Care" with TBA21-Academy to serve as a teaching tool for larger ocean issues. This project involves photo-documentation, underwater photography and video, hydrophone recordings, and other media and shows the power of these tools to extend coastal and marine science to the global community.

I also continued my research on the use of sensory experiences to enhance our understanding of natural and cultural world following my exhibitions with Platform1 Gallery in London, England, and Progress Gallery in Pomona, California, last year. This work engages people with sound, smell, touch, sight, and taste through researching and documenting native and ancient scents, drinks, and other cultural traditions. These projects draw on my archaeology background and experience with Iceland, the North, and Arctic, and other cultures as well as coastal and marine ecology, to help bring the cultural world to the public through the development of sensory experiences and exhibition.

AN UNEXPECTED TREASURE

By Stephen Loring

There is a belief in parts of America that everything that has been lost or misplaced or is simply no-longer around ends up at the Smithsonian. A notion facilitated by the closing scene of *Raiders of the Lost Ark* when the ancient treasure that **Indiana Jones** had



A surprise in the mail from Chevak!



Lomen Brothers photo from Nome, early 1900s

recovered from the sands of time is neatly crated and sent to a vast cavernous government storage facility. A storage facility that looks uncommonly like the oversized storage spaces in Pod 4 at the Natural History Museum's Support Center. Thankfully opening strange boxes from distant localities usually does not bring about the catastrophic consequences encountered by Indiana Jones nor for that matter, a millennia or two earlier, by Pandora.

In March the Arctic Studies Center received an unsolicited package mailed from the Cup'ik village of Chevak in the Yukon Delta that contained a wonderful surprise. **Richard Slats**, the 2nd Chief of Chevak Native Village, who had previously visited us in the fall, had decided to send us a magnificent seal gut raincoat that had been made by the Kashunamiut School District students participating in their Cultural Heritage Program (around 1978-1983) under the watchful eye of experienced elders (Slats, in his letter refers to them as "champions"), **Helen Friday** and **Theresa Ayuluk** (sadly now deceased). In an accompanying letter Mr. Slats wrote: "*The Seal Gut Raincoat was made by the Kashunamiut Project that was active in the late 70's,*

early-to-mid 80's. The project was to have our learned people teach our young traditional methods that were passed on from their forefathers throughout the generations...the raincoat is made from seal intestines (bearded seals). Guts cleaned out; blown up, hung to dry and cut evenly for this purpose. Seal gut raincoats are common throughout the coastal villages along and about the Bering Sea...." He adds, "*Let it be known that the hands-on teaching through word of mouth and actual doing is what makes us who we are; these teachings are generational and have been handed down throughout the centuries. This is a living example of Cultural Heritage being passed on through generations and it is our hope that you will carry this on through the work that you do.*"

Apparently, the raincoat had been boxed and stored for many years in the tribal office. It arrived safely, neatly folded up. When dried out and not in use, gutskin garments get stiff but are easily relaxed with a little moisture and can then be gently unfolded. The raincoat arrived in simply immaculate condition, it was hard to believe that it was close to fifty years old—a testament to the extraordinary care and preparation and the craftsmanship that went into making it. On behalf of the Smithsonian, we are honored and grateful to be the recipient of such a magnificent gift. It has been, and remains, a central tenet of the Arctic Studies Center practice to acquire objects from contemporary northern Native communities that can serve to augment the important heritage collections made during the ethnographic collecting heyday of the late 19th-century. This is a welcomed addition to the Smithsonian collections that speaks eloquently to the continuity of Cup'ik traditions, skills and knowledge, and a gift that we are honored and very pleased to be asked to care for.

SOLVING ANOTHER MUSEUM PUZZLE: THE NMNH PONIATOWSKI-ARSENIEV COLLECTION

By Igor Krupnik

Research on this project began in January-February 2020, when I received in the mail a hefty catalog volume called *Nanait'sy* (The Nanay) from Dr. **Galina Titoreva**, curator at the Grodekov Regional Museum in Khabarovsk, Russia (see ASC NSL 27). Soon after, another Russian curator, **Vera Kavetskaya** from the Arseniev Historical Museum in Vladivostok, inquired about our ethnological objects from the Amur River region in the Russian Far East. We have two medium-size ethnological collections from this area listed by their donors' names as 'accession 63969 (Poniatowski)' and 'accession 63972 (Arseniev),' comprising some 110 collection numbers altogether. Then the COVID-19

pandemic put everything on hold for almost three years, until in January 2023 we hosted **William (Bill) Wierzbowski**, a colleague from the University of Pennsylvania Museum of Archaeology and Anthropology. As we prepared for Bill's visit (Fig.1), I decided to give these two collections a close look...

The history of these collections from the Amur River area at the NMNH Department of Anthropology involved three renowned anthropologists of the past century—a Pole, **Stanislaw Poniatowski** (1886–1945), a Russian, **Vladimir K. Arseniev** (1872–1930), and a Smithsonian curator, **Aleš Hrdlička** (1869–1944), of Czech origin. It brought into its orbit several prominent scholars of the late 19th and the early 20th century, like **Franz Boas**, **Waldemar Jochelson**, **Lev Shternberg**, and **Bronislaw Pilsudski**. Their related writings and records in English, Russian, and Polish are scattered across three continents: at the SI in Washington, D.C., the Grodekov Museum in Khabarovsk, Russia, and at the University of Wrocław, in Wrocław, Poland. The lives of the three main characters were affected by two World Wars, the Russian Revolution of 1917, and the Russian Civil War of 1918–1921, producing a narrative of collaboration amidst world crises and political turmoil.

Though all key characters were seminal scholarly figures in their respective countries, only Hrdlička's name enjoys a worldwide recognition. Stanislaw Poniatowski was a Polish anthropologist born in eastern Poland, then part of the Russian Empire, who studied physical anthropology and archaeology in Zurich. Upon returning to Poland, he managed the collections at the Ethnographic Museum of Industry in Warsaw and was a lecturer in ethnology and the head of the Department of Ethnology at the Institute of Anthropological and Ethnological Sciences in Warsaw until World War II and the German occupation of Poland in 1939.

Like Poniatowski, Vladimir K. Arseniev would not be widely known outside his native country, Russia, if not for the movie *Dersu Uzala* (U.S. title: *Dersu Uzala: The Hunter*), a 1975 Soviet-Japanese film directed by the famous Japanese film producer, **Akira Kurosawa**. While hugely popular, the movie projected a skewed image of Arseniev, one of its key characters. He was a military officer in the Imperial Russian army; beginning in 1906, he conducted surveys of the then-poorly known areas across the Russian Pacific region, primarily along the Amur River. He had no training in Anthropology but was sympathetic to local Indigenous peoples and interested in their cultures. He was a prodigious author of over 60 works on the geography, wildlife, and ethnography of the Russian Far East, and an avid collector. He served as an honorary director of the Grodekov Museum in Khabarovsk in 1910–1919 and in 1924–1925.

Dr. Poniatowski Goes to Siberia

The activities that brought these men together took place thanks to a major public 'exposition' in 1915 in San Diego, California celebrating completion of the Panama Canal. The fair, named the 'Panama-California Exposition,' was designed to promote San Diego as the first American port of call along the Pacific coast north of the canal. When funding for the exposition was secured in 1912, its organizers reached out to Hrdlička, then physical anthropology curator at the USNM, and asked him to build a display on the history of human evolution for the future pavilion on the 'Science of Man.' Hrdlička designed an ambitious program to gather data and objects for the exhibit. Besides visiting Europe, Russia, and Inner Mongolia in summer 1912, he commissioned several people to collect materials for the San Diego displays. Among these men, was a young Polish anthropologist, Dr. Poniatowski from Warsaw, who agreed to travel to the Amur River region in Siberia to collect physical measurements, photos, skeletal remains, and ethnographic objects for Hrdlička's display on 'Ancient Man in Asia.'

The correspondence between Poniatowski and Hrdlička during the years 1912–1915 is partially preserved at



Fig. 1. Stephen Loring (left) and the author examine Poniatowski and Arseniev's objects in NMNH collection storage facility, January 27, 2023. Photo by Elisa Palomino-Perez

the NMNH National Anthropological Archives and in the Wrocław University Library in Poland. At that time, Hrdlička was promoting his theory about the peopling of North America by ancient ‘early Asian’ groups via the area adjacent to the Bering Strait, while also contesting the hypothesis about a ‘reverse’ migration of people from North America to Northeast Asia advanced by Franz Boas and his partners of the Jesup North Pacific Expedition of 1897–1902. Hrdlička’s perspective was probably toned by his well-known personal antipathy towards Boas and a desire to support his theory that the ancient populations that crossed into America from Asia were similar to the American Indians. To prove his position, Hrdlička directed Poniatowski to primarily look for the “individuals showing a type allied to that of the American Indians,” when doing physical measurements, photography, and facial casts

Poniatowski finally set out on his journey to the Russian Far East in May 1914. He first visited St. Petersburg, where he interacted with **Leo (Lev) Shternberg** (1865–1928), Russia’s prime authority on Indigenous peoples of the Sakhalin and Amur River region, who gave him a recommendation letter to Arseniev, director of the Grodekov Museum in Khabarovsk. On June 2, Poniatowski reached Khabarovsk on the Amur River. He quickly met with the two men who became instrumental to his fieldwork: Arseniev, the museum director, and a young Russian anthropologist

Ivan A. Lopatin (1888–1970), an expert on the Nanay (Goldi) people in the areas of Poniatowski’s prime interest. On June 15, 1914, Poniatowski and his crew left Khabarovsk by a motorboat and traveled to the Nanay community of Sikachi-Alyan on the Amur River (today’s population 273), some 70 km from Khabarovsk. From there, the crew continued down the Amur with short stopovers at local villages and fishing camps. Unfortunately, Poniatowski’s ambitious plans for a five-month 650-mile survey were interrupted by events beyond his control.

In late July 1914, World War I broke out in Europe. Military actions in northern Poland prompted Poniatowski to hastily return to Khabarovsk and to catch a train to his native Warsaw. His expedition was

over. During his short stay in Khabarovsk, Poniatowski divided his field materials, taking his notes, glass plates, negatives, physical measurement forms, and some ethnographic specimens with him to Warsaw and leaving the bulk of his ethnographic collections, plaster masks, and measurement tools given by Hrdlička in Arseniev’s care at the Grodekov Museum. The two agreed that Poniatowski would return to Khabarovsk in summer 1915, perhaps for joint fieldwork with Arseniev.



Fig.2 Bear-like figure (donte/duente, ‘burhan’), with the caption and explanatory drawing hand-written by Poniatowski, 1914, E303703, Smithsonian NMNH-Anthropology collection

Upon returning to Warsaw, Poniatowski, reported to Hrdlička that his work was cut short and that he was able to make only 134 body measurements, 130 photos, one cast, and collect 113 ethnographical specimens. None of his materials arrived in Washington in time for the San Diego exposition. In 1915, Hrdlička informed Poniatowski that all materials he had collected should be shipped to the U.S. National Museum and that no more funding was available for future work. Evidently, Hrdlička was considering his investment in Poniatowski’s fieldwork a failure, whereas Poniatowski still planned to travel to Khabarovsk to continue his research.

Little did Poniatowski know that a few months later Warsaw would be occupied by the German army and that all hopes for new work in Russia had to be abandoned. Poland became an independent nation in 1918. Dr. Poniatowski served as a cavalry man in the new Polish army in the war against Soviet Russia in 1919–1920 and continued his ethnographic career in independent Poland. His life ended

tragically during the second German occupation of Poland in WWII. He was arrested by the German secret police (Gestapo) in 1942 for covertly teaching ethnology classes to Polish students in his apartment (such training was forbidden by the Germans). Poniatowski spent his last years in German concentration camps and evidently passed away in January 1945. His American mentor, Aleš Hrdlička died in Washington more than a year earlier; Arseniev’s life ended in September 1930.

Accessions 63969 and 63972 Travel to Washington

In 1917, Arseniev received a letter from a Russian colleague with a request from Hrdlička to ship Poniatowski’s objects in Khabarovsk to the American Consulate in Vladivostok. The year, 1917, known

for two regime changes (revolutions) in Russia and the ensuing Civil War, was not ideal for collection exchange. In Khabarovsk, Arseniev was active in local political life, and it was not until spring 1918 when he attended to the Poniatowski collection. We know the rest of the story from accession records at the Smithsonian Institution Archives (SIA).

In May 1918, the American Consul in Vladivostok, **J.K. Caldwell** informed the Smithsonian U.S. National Museum (USNM) that the Consulate had shipped “one box containing a collection of ethnographical articles and one box containing a collection of wooden idols... sent to this Consulate by the director of Grodekoff’s Museum in Habarovsk, Siberia.” Seven months later, Caldwell sent another letter with more details on the donor, whom he called “Mr. W.K. Arseneff (Arseniev—IK) of the Museum in Habarovsk.” Since Arseniev’s name was cited, the accession no. 63972 was registered under ‘donor W.K. Arseneff, Grodekoff’s Museum, Habarovsk, Siberia’ and officially processed on August 15, 1919. On September 3, 1919, the long-delayed ‘letter of acknowledgement’ went to Arseniev signed by **William deC. Ravenel**, assistant to the Secretary of the Smithsonian. Besides thanking Arseniev, the letter lamented the lack of information on the shipped objects and encouraged Arseniev to “furnish a more extensive collection from East Siberian or other available tribes” (SIA 63972). There was no response from Arseniev.

The accession file for no. 63972 includes a typewritten list of objects, “Collection of Mr. W.K. Arseneff, Habarovsk, Siberia.” Produced in English, it lists the objects with practically no provenience data (time, location, ethnic group, etc.), beyond a mere technical description of the object appearance, material, and size (in inches). The list was obviously prepared by the USNM registrar; its original source is unknown. Today’s NMNH online catalog (EMU) allows search for both ‘Arseniev’ and ‘Arseneff’ and generates 49 catalog numbers.

The Poniatowski collection (SIA 69369) was officially processed at the USNM on the same day, August 15, 1919, with the donor’s full name and address listed as “Dr. Stanislaw Poniatowski, Pracownia Antropologiczna, Kaliksta [Str.] 8, Warsaw, Poland.” The accession was initiated by Dr. Aleš Hrdlička, and it was described as “collection of ethnographic material, principally charms and fetishes from the Gold Tribes, Eastern Siberia.” It contains no papers related to the collection travel to the USNM, but a short note from deC. Ravenel to Poniatowski acknowledging the collection accession at the USNM, and a similar 4-page typewritten list of objects. We know that Poniatowski received this letter, since it is preserved in his personal papers in Wrocław. There was no response from Poniatowski.

The most remarkable difference between object lists for the two USNM accessions was in the provenience data for Poniatowski’s objects. The latter have the name ‘Golds’ as ethnic definition of the group (known as Nanay/Nanai since the 1930s). Most objects have the place of collecting listed as ‘Sakachialan. E. Siberia’ (today’s spelling: Sikachi-Alyan). Several items have Indigenous names in some rough transliteration (i.e., ‘donte lakani,’ ‘seevusi,’ ‘kadaraku,’ etc.), evidently recorded by Poniatowski from his Nanay (Goldi) informants. Such information was evidently provided by Poniatowski himself, including the label ‘burhan’ for many wooden figurines (‘charms’) (Fig.2). ‘Burhan’ (burkhan) is a Mongolian (Buryat?) word used for a sculpture, a statue or any 3D image of Buddha and other Buddhist deities that was once common in Siberia and the trans-Baikal region. Hardly anyone at the Smithsonian could have known this word and used it in the accession papers.

The Collections

Both collections are medium in size: accession 63969 (Poniatowski) originally consisted of 54 catalog numbers and accession 63972 (Arseniev/Arseneff) of 49 numbers. Since several catalog numbers include many items, from 2 to 10, the actual number of objects in two collections is around 160. Even if provenience information is lacking for no.63972, we may tentatively assume that all objects were acquired among the Nanay or the nearby people based on their overall similarity (type, material, age, color, size, etc.).

The most notable feature of both collections is the lack of objects typical for museum acquisitions from the Amur River area and, generally, from Siberia and the Arctic from the late 1800s and early 1900s. There are no items of clothing and/or footwear, no boats (even models) or sleds, no models of dwellings, and no shaman drums. Other ‘missing’ object categories include clothing and containers made of fish-skin (a popular type from this area); dolls, made of cloth/wood or of paper; sewing tools and kits, including women’s bags; and tobacco pipes. There are few household items typical of ethnographic museum collections: a single basket among 160+ objects, one cylindrical birchbark box, and one ornamented wooden box (Fig. 3), but no spoons, bowls, mats, or rugs. There are hardly any large objects but plenty of small items.

Instead, the two collections abound in carved wooden figurines of various ritual meanings. In Poniatowski’s collection list these were identified as ‘charms,’ ‘charm figurines,’ or ‘effigies,’ often with their Nanay names attached in Poniatowski’s transliteration. Many were called burhans (see above); the general Nanay term used today is seven, with a detailed nomenclature for

various types that represented shaman helping spirits and/or personal charms. The two collections include at least 30 figurines that could be solidly identified as human-like: with large conical heads or headgear (kalgama in Poniatowski's transliteration), triangular headgear (odzha), flat rhomboid head or headgear, flat oval head (maangia), bent legs, and more. Several human-like figurines are tied together as bundles. The figurines are not painted and differ in size from rather heavy pieces 20" long to small and even miniature objects. Most are crudely carved; some are just pegs of wood with barely inscribed faces or eyes.

Animal-like figures number over 50 individual and paired items in the two collections. They represent different animal species, with bear (*donte*) and tiger being the most common. Poniatowski's collection includes images of horses (*moren*), ducks (*gasa*), turtle (*kaila*), frogs (*hora*), even hedgehog (*funntilka*) and mice. The Poniatowski collection includes a small number of items associated with shamanic ritual and healing: a shaman's headgear and seven healing 'yokes' made of bent saplings forming a hoop.

Overall, the Poniatowski collection is more diverse in composition, thanks to the presence of hunting implements (a few bows, arrows, bow-traps), shaman items, larger range of animal species represented as carved wooden figurines, and more household items. The Arseniev collection has an even larger share of small and medium-size figurines of human- and animal-like shaman helpers (*seven*); many items look almost like pairs or duplicates of objects in Poniatowski's accession. Nonetheless, it contains some notable additions, like a set for processing fish skin for clothing made of wooden beater and a beating board/block; a decorated paper scroll, and a triangular paper 'hood' lavishly ornamented in ink or paint, as well as a tiny wooden rattle (*dölya*), a small human image of fish-skin, and several peculiar wooden figurines.

Nevertheless, when examined (and stored) together, the two NMNH collections look remarkably similar in type, age, material, and even size. Both feature a disproportionately large share of ceremonial items, up to 60–80%, particularly when compared to other large ethnographic collections from the same area, like at the American Museum of Natural History (AMNH) in New York (336 specimens from the *Nanay/Goldi* people collected by **Berthold Laufer** in 1899–1900); at the UPenn Museum (389 objects); and at the Grodekov Museum in Khabarovsk (reportedly of 2200+ objects, of which 1576 pieces are included in the 2019 catalog). Evidently, Poniatowski's original field collection also included scores of Indigenous drawings, paper cutouts, stencils, ornamentation pieces, and small ethnographic objects that eventually ended up at the

Polish Ethnological Society (see below). Yet the two collections continued to live in the NMNH records as two separate entities, under two different donors' names to the present day.

Life at the U.S. National Museum/NMNH

Since both collections arrived at the USNM long after the closure of the Panama-California Exposition, they attracted little attention. It was clearly not the materials that Hrdlička was looking for, as neither the Nanay anthropometric forms nor photographs, plaster masks, nor any skeletal materials entered the Smithsonian from the Amur River expedition. The two collections were never displayed or used for publication. They were examined in the 1980s as a source of objects for the *Crossroads of Continents* exhibit (1988–1992), but preference was given to better-known pieces from the AMNH in New York (**W. Fitzhugh**, personal communication). One object, a string of four small wooden figurines (E303738, "Nanai gang of spirits") was displayed in the subsequent smaller *Crossroads Alaska* exhibit that toured Alaska and four museums in the Russian Far East, including Grodekov Museum in Khabarovsk in 1995–1997. Since 2010, two numbers from no. 63972 (Arseniev)—five small carved wooden figurines (E309972 – Fig. 4) and a mid-size figurine of a shaman spirit (E309967) have been displayed at the Living Our Cultures, Sharing Our Heritage exhibit at the Anchorage Museum in Anchorage, in a combined 'Eastern Siberian' case. The two collections were reviewed in 1999 by Dr. **Tatyana P. Roon**, a visiting Russian ethnologist from the Sakhalin Museum area, who provided little details. Poniatowski's collection was the focus of a student paper (by **Katherine Watson** in 2012) based mostly on Hrdlička correspondence in the USNM accession files.

Conclusion

The three main characters of this story parted ways soon after the Poniatowski and Arseniev collections were delivered to the U.S. National Museum in 1918. To my knowledge, Hrdlička never returned to his plan to support his vision via measurements and photographs of the living Native Siberian people. He did visit Russia (then the Soviet Union) in 1939 but his interests were then primarily in the early peopling of Alaska and the Aleutian Islands.

Unlike Hrdlička, Poniatowski was keen to continue processing his records from the Amur River expedition throughout his life. These records miraculously survived his arrest in 1942, because he kept it amongst his most precious papers in a suitcase that was rescued by his students. Included, among other things, his original diary in Polish from 1914 and a clean (edited)

version that was published in full in 1966. His photo collection from 1914 made of 124 glass plates and films (negatives?) also survived the war. These were digitized in 2016, so that almost 100 of Poniatowski's photographs from 1914 are now accessible online in edited volumes by Polish colleagues, **Stefania Skowron-Markowska** and **Marta Nowakowska**, and in blog postings. The online database built by the University of Wroclaw Library in 2016 offers the first chance to assess the Poniatowski's collection from 1914, in the possession of the Polish Ethnographic Society (Polskie Towarzystwo Ludoznawcze), including paper drawings by the Nanay people, stencils, cut-outs and birch bark pieces, clothing patterns and ornaments, Poniatowski's drawings, and a few anthropological measurement forms.

As I was pouring through the sources in three languages, it was obvious that the information summarized here does not provide a definitive clue to the relation between the two accessions. Did Arseniev simply ship to the USNM (under his name?) a portion of Poniatowski original objects, to which Poniatowski did not have time to attach the provenience data from his field notes? This may be the most plausible interpretation; it also means that accessions 63969 and 63972 are simply parts of one and the same collection that continue to live under two different donors' names. (Dr. Galina Titoreva, curator at the Grodekov Museum in Khabarovsk, agrees with this vision). Or was Arseniev trying to compensate the USNM with close or similar objects, for a segment of Poniatowski's materials that, for whatever reason, he decided to keep in Khabarovsk? Or was Arseniev's aim indeed to explore the connections with the USNM by using Poniatowski's objects left in his care, to which he added some personal specimens of similar type and value? We may never know the final answer.

Since the objects in both accessions are very similar, it makes sense to consider them a *connected* (combined?)

Poniatowski-Arseniev collection of 110+ catalog numbers, rather than two independent collections. This is very close to the number of "113 ethnographic specimens" that Poniatowski mentioned in his letter to Hrdlička in November 1914. It is also obvious that it constitutes just a *portion* of what Poniatowski acquired during his expedition of 1914 and that the elements of this legacy are now preserved at NMNH, at the University of Wroclaw, and probably at the Grodekov Museum in Khabarovsk. These dispersed pieces can now be 'reunited' electronically, if not physically, as a combined website/online exhibit or platform in three languages, English, Polish, and Russian.

The sad postscript to this story is that the descendants of Indigenous people who produced the objects and drawings collected by Poniatowski (and Arseniev?) and who were featured with personal names in Poniatowski's photographs and measurement forms never had a chance to see it, except for one object displayed in 1996–97 at the *Crossroads Alaska-Siberia* traveling exhibit. Members of the Nanay and other Indigenous nations of the Russian Far East region

have yet to be 'electronically reunited' with their legacy objects in the NMNH collection drawers and ancestors' photographs and drawings posted on a Polish website. Any such effort in 'online' knowledge co-production must await until connections between the Smithsonian/NMNH and the Russian curators can resume following the end of hostilities in Ukraine. When this happens, Stanislaw Poniatowski's legacy is certain to find a 'second life.'

I am grateful to my colleagues Felicia Pickering, William Fitzhugh, Stephen Loring, Aron Crowell (NMNH Anthropology), and Deborah Shapiro (SI Archives), William Wierzbowski (UPenn Museum), Galina Titoreva (Khabarovsk Grodekov Museum), also to Elisa Palomino-Perez and Dawn Biddison who took the photographs used as illustrations.



Fig. 3. Objects from Nos. 63969 and 63972 in NMNH-Anthropology collection storage. Photo by Igor Krupnik



Fig. 4. Nanay objects from "Arseniev collection" (E309972) on display at the Living Our Cultures exhibit, Anchorage Museum. Photo by Dawn Biddison, February 27, 2023

BUILDING AN OROQEN CANOE

By Feng Qu and Xiaoyun Guan

Guo Bao-lin, a Chinese Oroqen master canoe builder who is documented in the Smithsonian monograph *The Bark Canoes and Skin Boats of Northern Eurasia* (Luukkanen and Fitzhugh 2020), built the world's largest birch-bark canoe in July 2022. Guo, born in 1945, is a villager of Shibazhan Oroqen Autonomous Town in Tahe County, Heilongjiang Province. He inherited canoe building skills from his father since he was fifteen years old. In 2012, he earned the title as Representative Inheritor of National Intangible Cultural Heritage from the Chinese State Department of Culture.

Supported by the local township government and assisted by his family and three disciples (**Ma Zijing**, **Wei Xuejun** and **Aliqun**), Guo took 21 days (July 1st to 21st 2022) to build a birch-bark canoe 10 meters long and 1.5 meters wide. When it was reported to Geness Shanghai by the local government, the canoe set a Guinness World Record as the largest birch-bark canoe in the world.

Birch-bark canoes were traditionally used for hunting and fishing by the Oroqen people because of their silence and ease of portaging. The new canoe has been collected and is exhibited by the local museum in Shibazhan.



Left: Guo building the canoe with his assistants. Right: Guo and his family paddling his new canoe.
Photo by Xiaoyun Guan

CENTRAL YUP'IK MASKS IN THE VATICAN MUSEUMS: INDIGENOUS AMERICAN HERITAGE

By Ellen Pearlstein, Chuna McIntyre, and Stefania Pandozy

[Editor's note: This article on Yup'ik masks in the Anima Mundi Vatican Museum was published online on 13 April 2023 by Ellen Pearlstein, Chuna McIntyre, and Stefania Pandozy, who suggested it be noted in the ASC Newsletter. We present here the abstract and one picture to alert readers to this delightful "Yup'ik surprise"—a new collection of masks with commentary by conservators Pearlstein and Pandozy, and Yup'ik artist McIntyre.]

An exploration of conservation and curatorial practices surrounding Indigenous American heritage in European museums began with an American Academy in Rome Prize fellowship which served to reconnect three of the co-authors. The stunning discovery of seven Yup'ik masks from western Alaska at the Vatican Museums led two of the co-authors to connect with Chuna McIntyre, a Yup'ik artist and performer. In an effort to pilot a collaborative process where conservators and curators might have their technical and cultural understanding of these masks enhanced, a three-hour virtual meeting was arranged after the masks were documented and the images and information shared. The successes and challenges are presented here from various viewpoints.

Ellen Pearlstein & Chuna McIntyre. Traditional and Conservation Interpretations of Pre- and Post-Collection Working Methods for Alaskan Yup'ik Masks. *Studies in Conservation*, 2023



Yup'ik mask 101596. Anima Mundi, Photo Vatican Museums, Images and Rights Department © Governorate of the Vatican City State—Directorate of the Vatican Museums

THE SŪPUNGER KAYAK COLLECTED BY CHARLES FRANCIS HALL, MADE FROM WOOD SALVAGED FROM HMS *EREBUS*

By Russell S. Taichman

In 1845, an expedition under the command of Sir **John Franklin** departed from England with 129 men in two Royal Navy Ships (HMS *Erebus* and *Terror*) in a search for the Northwest Passage. The crews were never heard from again. Multiple British and American search and rescue missions were launched during the next two decades to find out what had happened. **Charles Francis Hall**, an American newspaper printer, became enthralled with the fate of the Franklin Expedition, and for a decade led expeditions in 1860–1862 and 1866–1869 to the Arctic with the intent to repatriate Franklin Expedition survivors. If that were not possible, then the mission was to recover expedition records located presumably on or near King William Island (KWI.).

During the 1866–1869 expedition, Hall and his companions met, camped, and traveled with the Inuit (or “Innuït” as Hall wrote) in search of clues and relics associated with the Franklin Expedition. Many of these people had first or secondhand knowledge relating to the Franklin crews and/or had visited the primary sites where members of the expedition had perished and took whatever materials they found useful.

During each of his expeditions, Hall conducted extensive interviews with Inuit who told him details of the Kob-lu-nas (white men) from the Franklin Expedition. Hall recorded the testimony in his traveling notebooks and private journals, and in letters sent to his sponsors, now housed at the Archives Center of the Smithsonian’s National Museum of American History.

In 1866 Hall met a Pelly Bay native named **Sūpunger** (often Hall spelled the name Su-pung-er, Su-pūng-er, Sū-pūng-er, Supunger). Sūpunger and his uncle journeyed to the West coast of KWI and visited many sites where Franklin expedition materials could be collected. Most notably, Sū-pung-er reported seeing a stone structure or vault that Hall and his traveling companion and interpreter, **Too-koo-li-too**, thought might contain documents associated with the Franklin expedition or the grave of a high-ranking officer. Sūpunger promised to accompany Hall to the site and collected supplies in preparation for that journey. However, the venture never occurred, although Hall did meet Sūpunger on several other occasions.

While seeking clues to the location of the vault, I visited the NMAH Archives Center during the period of 2016–2018 and came across the following fascinating passage. On July 27, 1866, Hall wrote (Fig. 1):

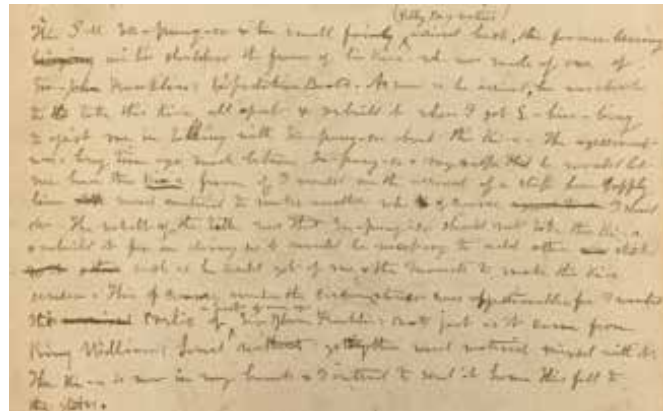


Fig. 1. Hall's notes from July 27, 1866

This PM Sū-pung-er + his small family (Pelly Bay Natives) arrived back, the former bearing on his shoulders the frame of his Ki-a {Kayak} wh. {which} was made of one of Sir John Franklin's Expedition Boats. As soon as he arrived, he was about to take this Ki-a all apart + rebuild it when I get E-bier-bing to assist me in talking with Sū-pung-er about this Ki-a. The agreement was a long time ago made between Su-pung-er + myself that he would let me have this ki-a frame if I would on the arrival of a ship here supply him with wood material to make another wh. Of course I shall do. The result of the talk was that Su-pung-er should not take this Ki-a + rebuild it for in doing so it would be necessary to add other sticks such as he could get of me + the Innuits to make this Ki-a anew. This of course under the circumstances was objectionable for I wanted this relic of a part of one of Sir John Franklin's boats just as it came from King William's Land {Island} without getting other wood material mixed with it. The Ki-a is now in my hands + I intend to send it home this fall to the States.

I had to see this Kayak! Not only for its importance as a relic of the Franklin Expedition, but for its significance linking Charles Hall to Sū-pung-er. On March 20 and 21, 2023, I arranged to visit the relics at the NMAH and the Museum Support Center which Hall had collected including Sūpunger's kayak. With the assistance of **Jennifer L. Jones** and Dr. **Stephen Loring** serving as able guides, I ventured through the Franklin Relics and ethnographic materials; a thrill that



Fig. 2. Bundled kayak parts with Hall's tag (left) and close-up of tags (right)

few Franklin fans have had! There in front of me was Hall's work. Numerous Franklin Expedition relics and ethnographic materials as well as objects Hall himself used himself on his ventures. Most excitingly, there was the kayak!

At first, it was not what I had expected. I had thought it would have been a fully assembled frame of a kayak. Yet the frame of the kayak itself was housed in several boxes (Fig. 2), and two major portions of it were still wrapped in the rope that Hall had evidently used to transport the craft in, once it was disassembled. Many of the ribs, spars and side pieces were still evident and there is no doubt that most of the craft had been preserved. Including the delicate and ingenious fragments of wood that were spliced together to make larger spans of materials and held together with animal tendons. No remnant of a skin covering was found.

Most of the kayak pieces were labeled "10373" in black ink. Attached to the bundles of ribs were paper tags written by Hall stating "10373, Relics of Franklin's Expedition," and "Ribs of Ki-a frame that came from Ook-joo-lik made of one of Sir John Franklin's boats that was one of the N.W.P. {Northwest Passage} ships, Hall See 8/69 "Sir J. F. Book" (Fig. 2). This inscription "see Hall 8/79 Sir J. F. Book" lead me back to the following passage made on August 8th, 1869, in Hall's Franklin Book:

"I asked In-nook-poo-zhe-jook about the kia-frame I have wh. I showed him. He said that it came from Ook-joo-lik – from the shore of a small Island called Ar-re-wing-mow-ring (as near as I can make out the almost unspeakable word) +

that near by where the ship that drifted to Ook-joo-lik was 1st seen + was finally sunk + broken up."

After an intensive search, HMS *Erebus* was located near Ook-joo-lik, Nunavut in 2014. The *Terror*, in 2016, was located, oddly enough, in Terror Bay, Nunavut. As *Terror* had sunk intact, and *Erebus* had been damaged and sunk near Ook-joo-lik, there is no doubt the kayak pieces came from *Erebus*. **In-nook-poo-zhe-jook**, who knew Süpunger, had been one of the Inuit who had visited and obtained materials from the Franklin Expedition boats initially found by **Francis Leopold McClintock** and **W.R. Hobson** in 1859 in Erebus Bay KWI. That In-nook-poo-zhe-jook knew the origin of the wood, that it had ultimately come from the *Erebus* and had been fashioned by Süpunger and collected by Hall was astounding. Holding the kayak in my hands, fashioned by the hands of Süpunger (Fig. 3), I was overwhelmed with the historical connections to the mystery of the Franklin Expedition and the search that ensued. I am most grateful for the opportunity that Jones and Loring provided me. It was truly a gift personally and supported my scholarship. As in the ballad of a famous song, I had truly found "the hand of Franklin reaching for the Beaufort Sea."



Fig. 3. Russell S. Taichman with Hall's kayak parts made from wood from the HMS *Erebus*

OUTREACH

KNOWING NATURE: STORIES OF THE BOREAL FOREST

The Arctic Studies Center's exhibition, *Knowing Nature: Stories of the Boreal Forest*, prepared by the Smithsonian Traveling Exhibition Service, will make its national premier at the Michigan State University Museum in April 2023. As described by SITES: "The boreal forest holds stories written over thousands of years, stories of 500 billion trees, billions of migratory birds, millions of lakes and miles of rivers. The boreal forest stores more carbon than most tropical forests and plays a significant role in stabilizing our climate. The boreal forest is also home to hundreds of Indigenous Nations and communities. Their ways of knowing nature offer a vision for a sustainable future. The exhibition integrates themes of climate change, Indigenous perspectives, and the relationship between people and nature. It takes audiences on a learning journey that starts with curiosity, builds empathy, and leads to action. Knowing Nature offers stories of resilience, strength and hope in a changing world."

Produced by **Carol Bossert** and curated by **Stephen Loring, William Fitzhugh, Rob Mullen, Kevin Brownlee, Gary and Joan McGuffin, Jeff Wells**, and others, the exhibition focuses on climate change and the global importance of our northernmost forests through first-person stories, commissioned objects, interactive experiences, and exquisite photography and videography. The exhibition describes the ecology, animals, plants, peoples, and history of the largest intact forest on Earth and calls attention to its importance as a source of water, natural resources, wildlife, and human habitat that needs urgent recognition and conservation. The exhibit is made possible by the National Audubon Society with additional support from The Anders Foundation, **Charlie and Nancy Hogan**, and **Anne C. Madison**, and will travel in North America in 2023–2027. For more information and bookings visit the [website](#).



Photo by Stephen Loring

ISSUMAQATIGINGNIQ: AN EDUCATIONAL MODEL TO ENGAGE THE NEXT GENERATION OF INUIT AND SCIENTIFIC COLLABORATORS

By *Martin Nweeia*

I2I, Exploring the Nunaverse, continues its mission to educate and celebrate Inuit traditional knowledge as a different way of thinking and knowing the environment. Forming written and video educational modules that highlight how science and Inuit Knowledge complement each other, the program integrates observations from an Inuit perspective and from scientific data collection about the natural environment. After a three-year hiatus, *I2I*, funded by the National Science Foundation and The United States Embassy in Canada, will set out to complete workshops in Canada and the United States with Inuit and scientific partners to formulate content for the educational program. These modules will then be packaged as an educational program designed to expose non-Inuit students to a different "way of knowing" their environment, and for Inuit students to better understand how science can complement their observations of their natural environment. The first workshop was in New York City in support of the 21st Session of the United Nations Permanent Forum on Indigenous Issues and gathered participants from the pan-Arctic nations of Canada, United States, Greenland, and Russia.

Inuit Qaujimagatunqangit (IQ), "the Inuit way of knowing" and science approach observation of the natural and physical world from different knowledge frames. Studies that integrate IQ and science demonstrate the inherent value of using observations and findings from both to understand Arctic systems. Yet, holders of IQ and scientists often do not fully appreciate the practice of the other, because they think and approach observation and knowledge differently. An educational program *Isumaqatigingniq* "thinking together" (I-STEM) will highlight studies of the Arctic ecosystems for NexGen thinkers from both Inuit and non-Inuit backgrounds. Future collaborations of these



Participants in a workshop in New York City during the United Nations Permanent Forum on Indigenous Peoples.

Photo by Pamela Peeters

groups will better equip students to address themes that design, optimize, and implement collaborative observing systems and the transfer of Arctic observations to reach global platforms. The call for action that identifies Inuit collaboration with international research efforts is essential for successful scientific investigation outcomes. Implementing an active educational program that engages high school youth to understand the value of incorporating these two ways of knowing will help foster that future educational environment of collaboration. The educational I-STEM model will bring a new Inuit perspective to formal scientific education programs and share perspectives of science and Inuit knowledge within Inuit educational programs, so that *Isumaqatigingniq* can grow and incorporate new perspectives on Arctic observations and knowledge. The resulting products will be six instructional written and video format modules incorporating ten of the United Nations 17 sustainable goals that illustrate and integrate approaches of understanding Arctic ecosystems through the lens of science and Inuit traditional knowledge.

FISH SKIN PEOPLES OF THE BERING STRAIT: ENCOUNTERS IN HOKKAIDO, JAPAN

By Elisa Palomino, June Pardue and Anatoly Donkan

In March 2022, fish skin fieldwork was conducted throughout the National Museums of Hokkaido, bringing world-class fish skin experts into direct contact with historical Ainu collections and artifacts. The fieldwork and accompanying conference, supported by the Japan Foundation, improved knowledge of sustainable fish skin traditional production, thus addressing pressing sustainability issues.

Due to the COVID-19 pandemic, Japan's borders had been closed to all but Japanese passport holders since April 2020. Japan reopened borders to research visa-holders on March 1st, 2022. Despite many difficulties, our fieldwork took place and provided a unique opportunity to hold a number of museum artifact consultations in the course of seven days. The main members of the team were Native Alutiiq and Inupiaq fish skin artist **June Pardue**, fish skin tanner and sculptor **Anatoly Donkan**, and Nanai from Eastern Siberia. **Wengfen Yu**, a Hezhe from Northeast China and main inheritor of Hezhe fish skin art, could not join us but stayed closely connected to the group.

Our first focus group was held at Hokkaido University Botanical Garden and Museum with curator Masaru Kato. We examined a Sakhalin Ainu fish skin robe, several fish skin boots, one having woven grass socks stuffed inside. June, an expert grass weaver,

noticed the similarities with her own Alutiiq grass woven socks. The second day at Upopoy National Ainu Museum and Park saw first encounter of Arctic and Subarctic Native cultures: June met **Masahiro Nomoto**, Director of Culture Promotion Department, who kindly guided us through the impressive new grounds of the biggest Ainu Museum in Hokkaido. He was also our connection with the Arctic Studies Center as a contributor to the Ainu exhibition who built the Ainu house (chise) and boat (itaomachip) for the Smithsonian exhibit, *Ainu: Spirit of a Northern People* curated by **Bill Fitzhugh** and **Chisato Dubreuil** at the NMNH in 2000. It is wonderful to see one project lead to another, to strengthen old bonds and forge new ones.

On our third day, we visited the Nibutani Ainu Cultural Museum created by **Shigeru Kayano** in 1972. Kayano was the leading figure in the Ainu culture movement and the first Ainu member of Japan's parliament and was largely responsible in 1994 for the enactment of the "New Ainu Law." Shigeru Kayano's son **Shiro Kayano**, his successor as head of the museum, gave a warm welcome to Donkan, as the two share a relationship of more than 20 years, dating back to Donkan's friendship with Shigeru and his wife Reiko. Donkan and June were able to examine a fish skin garment created by Wengfen Yu, the Hezhe artist who was unable to join us on this fieldtrip. The salmon skin jacket and trousers were executed by her mother in the 1950s. We could remark that, despite the garment having been on display in the museum for more than 70 years, it still looked quite new and well-preserved. This is due to the use of cornmeal for the removal of oils from the fish skins. Concerning how these fish skin garments are preserved, Wengfen Yu mentioned that every spring and autumn the garments would be taken out, placed on a flat surface and rubbed all over with cornmeal, a technique similar to dry-cleaning. The cornmeal removes dirt, dust and softens the skins at once. At the end, when all the cornmeal dust is removed, the garment will be just like new.

It was wonderful to see four Arctic and Subarctic Native cultures (Ainu, Hezhe, Alutiiq, and Nanai) united around the art of fish skin tanning. Donkan presented his own fish skin robe produced in collaboration with Ms. **Reiko Kayano** with bleached fish skins. We were also able to meet Ms. **Kayano**, a 91-year-old Ainu weaver and wife of Shigeru Kayano. Reiko shared with us all the steps of recreating a Sakhalin Ainu fish skin robe replica produced by her for the Mimpaku National Museum of Ethnology in Osaka. This was another older project leading to a new one. During this rich third day we also visited the Nibutani Ainu Museum with **Kenji Sekine** and his wife **Maki**, an Ainu embroidery artist and whose mother, **Yukiko**, is one of the last elm bark weavers in Hokkaido. Maki and June discussed the Ainu patterns and motifs

on her Kaparamip Ainu embroidered robes. The Alaska Native artists connecting with June via social media noticed the similarities between the Ainu embroidered patterns and Tlingit designs.

During our fourth and last day in Hokkaido, we held a focus group at Hokkaido Museum of Northern Peoples in Abashiri with curator Ms **Irumi Sasakura**. We had the opportunity to view all the artifacts that Donkan had created for the museum twenty years ago. He demonstrated the traditional techniques practiced by the Nanai along the Amur River sharing tools, knowledge, and processes. He showed us how to use the Nanai wooden tool he made to soften fish skins. Back in D.C. in January 2023, when **Igor Krupnik** was introducing the NMNH's Siberian collections to **Bill Wierzbowski**, curator at the Penn Museum, we found this same artefact. Exactly this kind of mutual enriching cultural interface and exchange was the aim of the fieldtrip.

The last day we held a focus group at the Bunka Gakuen Costume Museum in Tokyo, studying Donkan's shaman robe, and right afterwards the Arctic Fish Skin Heritage conference was held at Tokyo Bunka Gakuen University. June Pardue's presentation: *"Connecting Alaska Native communities through fish skin traditions"* analysed the fish skin, basket weaving, and tool collections she had seen on this trip and compared them with their equivalents of her Alutiiq community. She shared the work of fellow Native fish skin artists in Alaska as well as the prolific fish skin tanning workshops—over one hundred that she has implemented in rural Alaska and online worldwide since April 2020. Anatoly Donkan's presentation: *"Nanai shaman robes: sacred and ceremonial meaning"* featured his Amur Ethnic Art Museum artifacts comprising Nanai garments made of hand-painted and embroidered fish skin, and his own replicas of historical fish skin robes and tanning tools.

Since June's return home, she has earned the position of associate lecturer of Alaska Native Art History

at University of Alaska Anchorage UAA. After the fieldwork, June set up a Facebook group to share her knowledge of fish skin tanning with a global

audience and in less than 2 months she gained over 2,000 followers. The internet is helping fish skin enthusiasts to connect around this process. Without geographical restriction, a tradition originally linked to Arctic and Subarctic areas has developed new cultural connections through individuals and groups. In 2022 June collaborated with Dawn Biddison at the Alaska office of the Smithsonian Arctic Studies Center and with the Alaska Native Heritage Center on a project about Alaska Native knowledge on natural dyes from Dena'ina Lands. She participated in the creation of instructional resources, a set of 15 videos and a booklet featuring the dyeing of fish skin and other Alaska Native subsistence materials. The videos on Smithsonian Learning Lab are living proof on how to build collaborations addressing culturally sensitive issues around traditional knowledge of fish skin practices.

It was June and Donkan's dream to connect face-to-face with fish skin knowledge keepers and artistic stewards of natural resources. For the Ainu communities it was vital to meet Indigenous Peoples from around the world, and to understand what place Ainu People have in the Indigenous world. For me, as an Arctic fish skin scholar, it was my dream to help to make it happen. Not only these elders benefited, but also the museum curators who were honoured to meet and learn from these artists, fieldtrip participants, and online viewers of the conference.

Our gratitude goes to William Fitzhugh, director of the Arctic Studies Center, and his team: **Stephen Loring**, **Igor Krupnik**, **John Cloud**, **Nancy Shorey**, **Bernadette Driscoll**, **Dawn Biddison**, and **Aron Crowell**. We are grateful to the Hokkaido National Museums, museum curators, Japanese universities, fish skin tanners and Alaska Native tribes and communities.



Elisa Palomino, June Pardue, an Alutiiq fish skin artist, Ainu performer artist, and Masahiro Nomoto, Director of Culture Promotion Department at the Upopoy National Ainu Museum. Shiraoi, Hokkaido. Photo courtesy Elisa Palomino



Anatoly Donkan, a Nanai from Eastern Siberia, demonstrating how to use the wooden tool he made to soften fish skins. Photo courtesy Elisa Palomino

BOOK REVIEWS

THE SOCIALITY OF INDIGENOUS DANCE IN ALASKA. HAPPINESS, TRADITION, AND ENVIRONMENT AMONG YUPIK ON ST. LAWRENCE ISLAND AND IÑUPIAT IN UTQIAGVIK, BY HIROKO IKUTA

Routledge: London and New York, 2022

By Igor Krupnik

The book is one of the latest installments in a new series, *Arctic Worlds. Communities, Political Ecology and Ways of Knowing*, begun a few years ago by the Routledge in London, under the general editorship of our colleagues, **David Anderson** and **Robert J. Losey**. The author, Dr.

Hiroko Ikuta, started as Anthropology student at the University of Alaska Fairbanks and received her Ph.D. at the University of Aberdeen. She did her fieldwork in Gambell and Savoonga on St. Lawrence Island and in Utqiagvik (then called Barrow) in the late 2000s. She has lived in Alaska for 18 years, while at UAF and working for the Alaska Department of Fish and Game, before returning to her native Japan, where she currently teaches at the Kyushu University in the city of Fukuoka in southern Japan.

Beyond these dry biographical facts, this book is also a product of love and of deep thoughts. Ikuta approaches Alaskan Native dancing as an Anthropologist, but also as a fellow practitioner, as she did her best to participate in Indigenous community dancing whenever and wherever it was possible. The book is illustrated by scores of historical photographs but also by pictures that Ikuta took herself in the communities she worked in. She is an avid photographer; she also collected musical recordings and taped extended interviews with Native dancers, a portion of which are cited in the book.

Despite its long academic title (evidently a relic from the Ph.D. thesis at the University of Aberdeen), the book is very inspirational. Its six chapters cover a broad scope of issues – from Happiness and Personhood to the symbolic meaning of Dance and a Drum, to the role of dancing and drumming in supporting community health, stability, and inner cultural core. The latter has been long advocated – by ethnomusicologists and by dancers and community leaders themselves. Hiroko's novel

contribution is by introducing different social models in how dancing strengthens Indigenous communities and identities. It is the very comparative nature of Ikuta's fieldwork—among the Yupik on St. Lawrence Island and the Iñupiat in Utqiagvik that offered to her the comparative lenses, internal and external, that were missing among her esteemed predecessors.

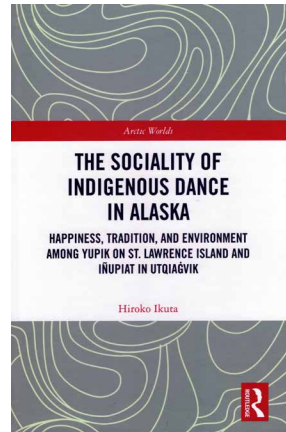
The persistence of Indigenous dancing and singing/drumming culture, naturally, depended on the history and political landscape of each aboriginal community in Alaska. They all went through a period of cultural oppression (at least, of marginalization) of Indigenous dancing and singing traditions by various Christian denominations that got established in Alaskan communities in the late 1800s and early 1900s. Some were very strict in condemning Native dances as 'pagan rituals'; others were more tolerable, which facilitated transitions to modernity and the preservation of old community rites. Ikuta's selection of St. Lawrence Island and Utqiagvik, the two most prominent 'hubs' of Native Alaskan dancing and music culture allowed her to argue that such cultures (in plural!) may be preserved in different ways—from a quite informal context of small, often spontaneous community gatherings centered around scores of active practitioners (as on St. Lawrence Island) to the formally organized dance ensembles and large competitive community festivals (as in Utqiagvik). The good news is that one way or the other, Native dances serve as a mechanism of healing and cohesion, but, as Ikuta argues, not as the only nor even as a guaranteed path to cultural and language retention. This thoughtful and mind-provoking book is with us to stay. It should be consulted by those who study culture transitions, language retention, and other paths to resilience in our rapidly changing world.

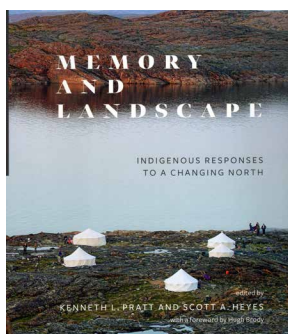
MEMORY AND LANDSCAPES: INDIGENOUS RESPONSES TO A CHANGING NORTH, EDITED BY KENNETH L. PRATT AND SCOTT A. HEYES

Athabasca University Press, Edmonton, AB, Canada, 2022

By Igor Krupnik

This beautifully designed and exquisitely illustrated book edited by two ASC Research Associates, **Kenneth Pratt** from the BIA Alaska Region Office in Anchorage, and **Scott Heyes** at the University of South Australia in Adelaide, Australia, 'scoops' the North American Arctic and Subarctic from west to east, from the Bering Strait, including Chukotka, Russia to West Greenland.





It is an outcome of a long path that started at a thematic session at the 18th Inuit Studies Conference, *Arctic/Inuit/Connections* hosted by the ASC in Washington, D.C., in October 2012 (*ASC NSL 2013*) and concluded with a 400-page volume. It has been a long road with a few stops, but certainly worth undertaking, including

partnering with the Athabasca University Press. The team of two volume co-editors offers an excellent match, because of their personal regional focus (Alaska and the Eastern Arctic respectively); their shared interest in Indigenous landscapes, memories, and oral traditions; and their preferred use of historical sources (for Pratt, an ethnohistorian) and physical traces on the land (for Heyes, a landscape architecture). They were able to host an impressive team of contributors, literally a ‘who’s who’ list of scholars engaged in Indigenous knowledge about land, landscape, and oral tradition.

The volume is organized in three sections, *Indigenous History and Identity* (Part 1), *Forces of Change* (Part 2), and *Knowing the Land* (Part 3). Each section is preceded by an eloquent statement by Indigenous Elders and land-users—**Vinnie Baron** and **Felix St. Aubin**, a teacher and hunter from Kangiqsualujjauq in Nunavik; **Apay’u Moore**, a Yup’ik artist from Bristol Bay, Alaska, and **Evon Peter**, a Gwich’in educator and community leader from Arctic Village, Alaska. The volume is opened by a foreword by **Hugh Brody**, anthropologist, filmmaker, and an author of many seminal books, including *Living Arctic* (1987), *Maps and Dreams* (1981), and *The Other Side of Eden* (2000), and the *Introduction* by the volume co-editors. With eighteen chapter authors, they made a powerful team.

Naturally, the chapters differ in focus, strength, and the depth of authors’ local knowledge, even though they all deal with memories and landscapes in various cultural contexts. The first two sections cover primarily the issues of identity and aboriginal history (even if the distinction in Parts 1 and 2 is sometimes blurred). The ‘History and Identity’ section opens with **Aron Crowell**’s overview of the early migration narratives from Southeast Alaska, tested against archaeological and geological data. **Murielle Nagy**’s and **Robert Drozda**’s chapters on Inuvialuit ethnonyms and Nunivak Island toponyms are squarely in the ‘identity’ field, as is the chapter by **Martha Dowsley** and co-authors about women’s attachment to the land in the Eastern Canadian Arctic via plant gathering and berry harvesting.

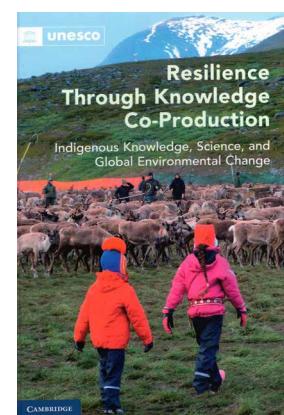
Four chapters in Part 2 (by **Mark Nuttall** on Greenland; Ken Pratt on the Yukon Delta; **William Simeone** on the Copper River Basin; and **Scott Heyes** and **Peter Jacobs** on the historical types of Aboriginal dwellings in Nunavik) address the same junction of Aboriginal memories and landscapes via the lenses of change—environmental, cultural, and historical. Lastly, the third and final section is fully dedicated to place names—along the Inuit-Yup’ik and Dene language borders (**Gary Holton**), in the Yukon-Kuskokwim Delta (**Louann Rank**), in the Kivalliq Region of Nunavut (**Peter Dawson** and co-authors), and on Chukotka Senyavin Strait Islands (**Michael Chlenov**). Altogether, this book makes a wonderful compendium of knowledge and an invaluable resource, accompanied by dozens of large color photographs and numerous maps in a beautifully designed volume. Congratulations to Ken and Scott, and the entire team!

RESILIENCE THROUGH KNOWLEDGE CO-PRODUCTION. INDIGENOUS KNOWLEDGE, SCIENCE, AND GLOBAL ENVIRONMENTAL CHANGE, EDITED BY MARIE ROUÉ, DOUGLAS NAKASHIMA, AND IGOR KRUPNIK

Cambridge University Press and UNSECO, Cambridge and Paris, 2022

By Igor Krupnik

This book looks like a sequel, almost like No.2 in a virtual UNESCO-Cambridge series on Indigenous knowledge and Climate Change, in the footsteps of the previous collection, *Indigenous Knowledge for Climate Change Assessment and Adaptation* (Nakashima et al. eds., 2018). The two volumes look very much alike, have the same format and similarly beautiful color covers, and were produced by a close team of co-editors. Yet their histories were very different. The 2018 collection came out of an international symposium held in 2011 in Mexico-City organized by **Douglas Nakashima** and **Jennifer Rubis**, then both at the UNESCO “*Local and Indigenous Knowledge Systems (LINKS)*” program in Paris. It was aimed at the release of the Fifth Assessment Report (AR-5) of the Intergovernmental Panel on Climate Change (IPCC) but appeared several years later. The current collection, *Resilience Through Knowledge Co-Production*,



emerged from two smaller symposia in 2012 and 2014 in Paris hosted by the LINKS office and co-chaired by Nakashima and **Marie Roué**. It has fewer chapters (17), including the Introduction by Roué and Nakashima, and a short Epilogue by **Igor Krupnik**. It was also ‘freed’ from the association with the IPCC process, with two notable consequences.

The first feature of the new volume is an impressive share of stories from the Arctic and Northern regions that carry the brunt of impacts of global climate change, but also the impressive range of participatory research in knowledge co-production. It also matches nicely with the research interests of the three co-editors, who are all Arctic specialists. Part One features six chapters describing various co-production efforts across the North—mostly in Alaska and Northern Scandinavia (by **Huntington** et al. on the shifting paradigms from collaboration to co-production in scores of knowledge documentation projects in Alaska; by **Eicken** et al.) on the learning about sea ice from the people of Wales, Alaska through decades of observations; by **Druckenmiller** on sharing knowledge about the ocean on Alaska’s North Slope; by Krupnik on making Indigenous ‘sea ice dictionaries’ in Chukotka and Alaska; by Roué et al., and **Roturier** et al. on partnering with the Sámi herders in northern Sweden; but also two more chapters in other sections of the book (by **Bruce Forbes** and co-authors on Yamal Peninsula in West Siberia, and by **Anders Henriksen Bongo**, a Sámi herder from Northern Norway). This is an impressive record in itself that proves that the Arctic or the ‘Great North’ is clearly in the forefront of efforts in knowledge co-production and ahead of other world regions.

The other notable feature of the new book is its strong public (even political) message expressed by two co-editors, Roué and Nakashima, in their extensive Introduction. Though the ‘co-production’ of knowledge emerged as an effort in partnership or collaboration among the diverse field of scholarship and various actors, governmental, community-based, and public, today’s co-production is a tool and the driving force in the process of decolonization of knowledge and of the scholarly research with Indigenous communities. The chapter argues for the new ethical standards to be applied to *any* effort in co-producing knowledge with communities, new approaches, as well as new tools. It reviews what went wrong with the previous efforts and how things may be corrected and advanced when a new ‘decolonized’ approach to co-production is implemented. Whereas some scholars may disagree, this is a must-read collection for everyone interested in partnering with Indigenous knowledge experts and in working with communities across the North.

EXPEDITION RELICS FROM HIGH ARCTIC GREENLAND: EIGHT DECADES OF EXPLORATION HISTORY TOLD THROUGH 102 OBJECTS, BY PETER R. DAWES

Museum Tusulanum Press, Copenhagen, 2022

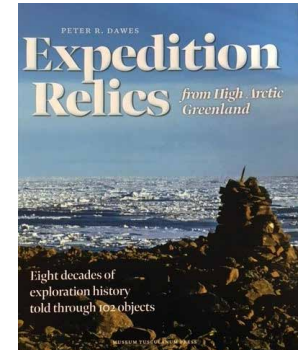
By William Fitzhugh

In December 2022 a very large book with an intriguing title appeared in the mail. At first, I could not make heads or tails of its detailed descriptions of isolated objects assembled opportunistically by the author and a few other researchers during field projects in far northern

Greenland. Coming from an archaeological background in which context is everything, how could a few nails, message bottles, rusty cans, an ion wheel, a whalebone sledge shoe, a copper washer, a leather fragment and other sundries collected as ‘relics’ over the course of 40 years from scores of expedition sites, back-bone an exploration history of northernmost Greenland? But as I dove into this oversize 5 lb. book, I realized **Dawes** has created ‘treasure from trash’—from a disparate collection of 102 objects accompanied by the stories, history, people who left these objects behind. What seemed at first like a lifelong antiquarian relic-hunting pursuit turns out to be a magnificent piece of contextual scholarship.

None of these objects are particularly noteworthy by themselves, and while they have been described and researched with great precision, are beautifully photographed, and are now safely stored in museums and archives, they serve Dawes’ purpose. He uses them to introduce the reader to the remarkable expeditionary history when between 1850 and 1935, from Elisha Kane to the Oxford Expedition, hundreds of explorers, scientists, ship captains, and Inuit support teams, as well as the nations and financiers who backed them, threw themselves into one of the most dangerous places on Earth in quest of North Pole glory, geography, science, self-discovery, bravado, and even death.

While conducting geological work for the Danish-Greenland Geological Survey, Dawes and a few others collected these momentos from the remains of base camps, fly-camps, message cairns, and object cast-off sites. Each expedition is described; its personnel are introduced, and their movements mapped. Great care is used to document the Greenland Inuit who were mostly responsible for the lives saved and successes achieved.



Even the dogs receive the eulogy they deserve, for unlike most humans, few survived.

Dawes has created a remarkable volume documenting an audacious era of exploration before radios and aircraft brought an end to the quest for ‘furthest north’. Through careful selection of stories and people, detailed references to literature, photography of expeditions and landscapes, the story of these ‘relics’ becomes a reader’s path to this latter-day ‘ultima Thule.’

BOOK ANNOUNCEMENT BY WILLIAM FITZHUGH

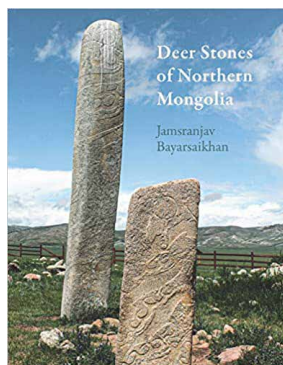
Deer Stones of Northern Mongolia, by Jamsranjav Bayarsaikhan, Smithsonian Arctic Studies Center and Inuit Press International, 2022.

Archaeology of Bronze Age Mongolia: a Deer Stone Diary, by William W. Fitzhugh. Smithsonian Arctic Studies Center and Inuit Press International, 2023.

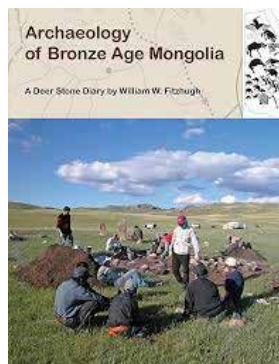
In 2001 the Arctic Studies Center began a research project that brought the Smithsonian and the Mongolia National Museum into partnership studying Mongolian’s Bronze Age deer stone monuments that has lasted for more than twenty years. From 2001 to 2013 we conducted annual field projects centered in northern Mongolia—the heartland of deer stone distribution. The project involved dating these iconic monuments, investigating their role in Bronze Age mortuary ceremonialism, interpreting their symbolism, and exploring their stylistic relationships with other Central and West Asian cultures and early Bering Sea Eskimo art. The ASC has now published a set of two volumes on the results.

Bayarsaikhan’s volume was initially prepared as a Ph.D. dissertation for the National University of Mongolia. We translated the text from Mongolian and prepared illustrations and appendices. Bayarsaikhan’s focus is the analysis of deer stone art engraved on deer stone monuments in northern Mongolia. His work greatly expands earlier work by **V.V.**

Volkov, who published the first detailed survey of deer stone sites and illustrated some of their carvings in his 1981 Russian language monograph. Bayarsaikhan includes a detailed description of the long history of deer stone studies which was conducted mostly by Russian scholars in the mid-20th century. In addition to classifying deer stone art motifs, he brings to the



discussion ethnographic and mythological material relevant to their interpretation, establishing a link in heritage beliefs extending over more than 3,000 years. His book is the most comprehensive study ever done on deer stone art and will set the baseline for all future work.



Fitzhugh’s volume sets forth the archaeological context of the Smithsonian-Mongolian deer stone project and describing the fieldwork, sites and monuments studied, and the results of the decade-long investigation. This book also explores the wider relationship of Bronze Age deer stone art and culture—defined as the Deer Stone-Khirigsuur

Complex, or simply, ‘Deer Stone Culture’—and its relationship with the famous Syctho-Saka art horizon in Central and West Asia and similar stylistic features known from early Eskimo cultures of the Bering Strait region. Although no ‘smoking guns’ have been found connecting deer stones and Eskimo art, radiocarbon dates from horse sacrifices associated with deer stone and khirigsuur burials established the deer stone culture and art era existed from 1400-700 B.C.E., making it a foundational component rather than a derivative style of the Scythian art horizon of 700-200 B.C.E. Fitzhugh’s book demonstrates that deer stones are monuments to specific individual leaders whose weapons and ornaments would have been recognizable to all members of their society. Stylistically, the book integrates descriptions of deer stone archaeology with excerpts from field diaries describing the interactions with local herders and visitors that provide contemporary context for the archaeological work.

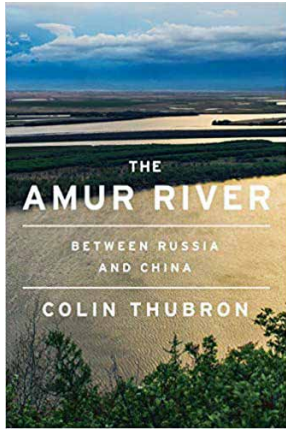
Together, these volumes present a comprehensive treatment of the historical, ritual, and artistic life of Late Bronze Age Mongolia at a time when this society was about to be transformed into a series of nomadic states and empires whose horsemen conquered and governed a large part of central Eurasia. Deer stones, which we have found are portraits of individual ancient Mongolian leaders, have for the first time given Mongolians and the rest of the world a glimpse of 700-years of biographical statuary. The fact that many of these stone men stand in a linear north-south arrangement, only a few meters apart, suggests that they represent historical sequences of Mongolia’s ancient leaders.

Books are available from the Arctic Studies Center or Amazon.com

THE AMUR RIVER: BETWEEN RUSSIA AND CHINA, BY COLIN THUBRON

Harper Collins, 2021.

Reviewed by William Fitzhugh



Although its 3,000 mile length makes the Amur the tenth longest river in the world, its name would not be recognizable to most Europeans or Americans. The reason is right there in the title—‘between’. For 1,100 miles it forms the border between China and Russia, and this geography and history have sentenced it to be a contested cultural, political, and economic frontier for thousands of years. Thubron’s

elegantly-written river-tale documents his travel from Amur headwaters in Mongolia to its huge “desolate end” opposite Sakhalin Island in the southern Okhotsk Sea. Traveling alone as a 80-year old Westerner, he was curious to see how conditions had changed since he made the trip twenty years earlier. The book describes a harrowing adventure on horseback through the Amur’s northern Mongolia headwater swamps; by canoe, car, and a variety of riverboats through Russia; along the thousand-mile Russia-China Amur border; and back into Russia, then passing Khabarovsk, before reaching the river’s immense delta—all while nursing a near-debilitating Mongolia riding injury.

Thubron’s narrative is a masterful compilation of history, geographic description, personal interviews of monks, bandits, poachers, businessman, officials, soldiers, fishermen, drunks, and poets. His descriptions of people, places, history, and states of mind are elegant, peppered with amazing phrases and astonishing vocabulary—befitting his reputation as one of the finest travel-writers of all time. He is respectful of everyone and reports their views with great nuance. I found myself comparing his book to Patrick Leigh Fermor’s multi-volume description of travels from Britain through Germany and along the Danube on the eve of WWII.

Paralleling Thubron’s verbal wonders is the stark reality of multi-ethnic indigenous peoples caught in the vise between Russian and Chinese ethno-politics, beset upon by criminality and corruption. The message of the book is starkly bleak, partly due to the demographic, military, and industrial horrors of the Soviet period, the constant modern downward spiral due to forces individuals cannot control or influence—much of it

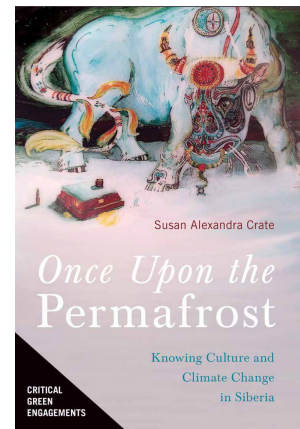
rooted in a clash of Russian and Chinese ethnicities and values, leaving an absence of hope for humane, sustainable lives in the future. And the Amur—she just flows on, her sturgeon, salmon, sea mammals, and land animals also victims of over-exploitation that began when the Nanai, Nivkh, Negidal and other indigenous peoples were overwhelmed by Russian/Soviet and Chinese domination, corrupt officials, and lack of environmental respect.

ONCE UPON THE PERMAFROST: KNOWING CULTURE AND CLIMATE CHANGE IN SIBERIA, BY SUSAN A. CRATE

University of Arizona Press, 2022

Reviewed by W. Fitzhugh

“The Sakha people of Siberia live far from most of us in a forbidding and changing land of extreme cold and heat, underlain with permafrost. Through many years of research with them, Susan Crate brings to life how the knowledge and narratives of local people, explorers, and scientists reveal the interplay between culture and environment and why, in a profound sense, we all do ‘live on permafrost.’”— **Bonnie McCay**



Susan Crate has given us a striking example of the complicated trajectory of a people and culture that has adapted and survived some of the most challenging conditions imaginable. In less than a century the Sakah (formerly Yakut) have been repeatedly upheaved by political, economic, social, technological, environmental, and climate change. Crate lived with the Sakha people for several years in the early 1990s and returned in recent years to document how two villages on the Vilyuy River, a west tributary of the great Lena River, are dealing with, and adapting to, forces largely beyond their control.

Crate’s analysis centers culture, language, and alaaas as the core of Sakha identity in their thousand-year history of adaptation to the Middle Lena River. Sakha people originated as a cattle-breeding, Turkic-speaking people whose roots lay further south in the Baikal region north of Mongolia. Replacing Tungus (Evenk) hunters and reindeer breeders, they settled the river valleys where grass was available for their horses and cows and supplemented their diet with hunting and gathering. The core of family life was built ‘living by alaaas’—a

term for the pockets of grasslands that sustained their animals but also became a culture-environmental philosophy for traditional life.

Today that thousand-year Sakha lifeway and the culture that supported it has been challenged as never before, threatening their very existence as a culture and people. Sakha language is being replaced by Russian as cell phones and media communication expands; young people are choosing education and city-life over rearing animals; the comings and goings of political regimes and damaging development plans have been destabilizing. Underlying everything is the melting permafrost that is turning pastures, roads, and homesteads into a maze of humps and dips, ponds, and marshes, making haying, vehicle travel, and life itself nearly impossible. Crate's presentation of the Sakha experience is a clarion call for environmental sanity while there is still time to mitigate the disasters confronting Sakha. Despite this, Crate is hopeful that Sakha resilience will prevail and its people will find a new balance—if governing authorities listen to the message of alaa. After all, there was a time when the Sakha left an earlier homeland and found a new way and culture that has thrived for nearly 1000 years. As Crate notes, "Metaphorically, we all live on permafrost."

AN EXPLORATION OF PREHISTORIC ONTOLOGIES IN THE BERING STRAIT REGION: BOUNDARIES AND STRUCTURES, BY FENG QU

Cambridge Scholars Publishing, 2021

Preface to the book by William Fitzhugh

As a student at Jilin University in China, **Feng Qu** heard a lecture on the role of shamanism in Chinese history and its early archaeological cultures given by the visiting American-Chinese archaeologist, **K.C.**

Chang. Inspired to learn more about connections between archaeology and psychology, Qu enrolled in 2003 at Holland's Leiden University where he was introduced to modern theories and literature on shamanism. Then, in 2009, aware of Alaska's prehistoric connections with China identified by Henry Collins' research into the Old Bering Sea culture and Larsen's and Rainey's interpretation of Ipiutak art, Qu entered the Ph.D. program at the University of Alaska in Fairbanks.

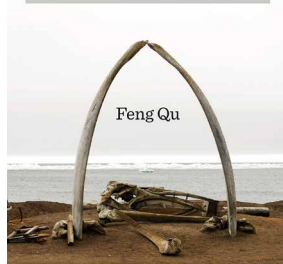
Soon after, he and I began a correspondence as he explored the literature on ancient Bering Strait cultures and studied collections in Fairbanks and Washington, D.C. This book presents Qu's search for foundations and meaning in ancient Eskimo art.

Qu has unique qualifications for researching a question that has intrigued and plagued Arctic archaeologists for decades. The first break-through came when Henry Collins identified connections between ancient Alaskan Eskimo art and burial ritual in Bronze and Iron Age Shang and Chou cultures in northern China. In the decades that followed, attempts to identify proto-Eskimo links in the Far East, Scytho-Siberian art of Central Asia, and the Asian Arctic failed to provide answers. The problem remained dormant until Feng Qu began investigating connections between Bering Sea art and Neolithic cultures of northern China where prototypes in the ritual use of jade, animal symbolism, shamanic forms, hunting magic, and human-animal relations could be recognized in Neolithic Liangzhou sites more than a thousand years before Shang.

Not only does Qu point the way toward a new vision of the origin of Eskimo culture and art: he also explores its anthropological foundations using modern ethnographic and ecological data. His exploration follows the discovery that 19th century Southwest Alaskan Yup'ik art can be traced directly back to Old Bering Sea roots. Most work by culture historians involves using archaeological remains to provide chronological and culture classification structure but leaves unexplored the social and ritual basis for art. Qu's studies provide tools for understanding ancient art and ritual in a broader context, explored from multiple theoretical vantage-points. His approach embodying elements of animal ecology, hunting magic, and theriomorphic imagery brings insight that can be applied generally to interpretation of ancient ritual art from Paleolithic caves to contemporary Inuit art. Much more remains to be researched, but Qu challenges archaeologists and art historians to look in new directions.

Prehistoric Ontologies brings a broad array of scholarly disciplines together to tackle long-standing questions about the history and function of ancient Bering Sea Eskimo art and its relationship with the ancient cultures and art of the Far East. Although this book is focused primarily on Eskimo cultures, it paves the way for a reanalysis of Beringian connections, utilizing new anthropological theory and archaeological evidence beginning to be uncovered in China and other regions of Northeast Asia. Qu's publications bode well for progress understanding China's northern connections with the Arctic and the origins and functions of artistic expression, ritual, and belief in the North Pacific region.

AN EXPLORATION OF
PREHISTORIC ONTOLOGIES
IN THE
BERING STRAIT REGION
Boundaries and Structures



TRANSITIONS

KEVIN R. WOOD (1962–2022): A MARINER-TURNED ARCTIC OCEANOGRAPHER

By Igor Krupnik



In February 2022, the ASC lost a good friend, and the field of Arctic oceanography and of Arctic historical climatology lost an important figure and a dedicated explorer. Dr. **Kevin R. Wood**, 1962–2022, was a researcher at the University of Washington’s Joint Institute for the Study of the Atmosphere and Oceans, with a joint appointment at the NOAA Pacific Marine Environmental Laboratory (PMEL) in Seattle, WA. Quiet and unassuming, Kevin was a rare scholar in his field of polar ice-weather-climate-ocean interaction who was dedicated to the studies of historical records and who cherished publications from the days of whalers and early explorers as an invaluable source for today’s understanding of planetary change.

I first met Kevin in winter 2004/2005 at a polar meeting in Washington, D.C. It was the second year of preparations for the International Polar Year 2007–2008. Kevin was then on detail to the NOAA Office of Arctic Research and was duly digitizing, together with his friend and NOAA colleague, **Igor Smolyar**, large-size antiquarian volumes published after the first International Polar Year (IPY) of 1882–1884. It was an effort in both data rescue and data mining, as the two were trying to organize old meteorological records from 14 stations that had been active during IPY 1882–1884. It took them two years to complete the task of synthesizing data that was left unfinished over a century prior. NOAA produced a [site](#); Kevin published a ground-breaking paper (*Climate lessons from the First International Polar Year*, 2006, with **James Overland**), and I learned to listen carefully to Kevin’s insight, as well as to his personal stories.

Kevin, then in his early 40s, was greatly enjoying his life as a marine scientist. Born in Jacksonville, FL,

he had a prior sailor/mariner career of over 20 years that included stints as a professional lobsterman, a transatlantic sailor, a merchant mariner, a second mate on research ships that belonged to the Woods Hole Oceanographic Center, as well as a crew member on the NSF-supported Antarctic ship missions. He had a strange aura of calmness and a gravitas of a man, who had seen more than office cubicles of the NOAA Arctic Research program in Silver Spring, MD. After completing his detail, he returned to Seattle, found a wonderful wife, **Kelly McBroom**, started a family, and launched a science career that took him to Arctic icebreakers, distant polar camps, and decks of Russian ships, under a joint project named Russian American Long-Term Census of the Arctic, RUSALCA (which in Russian means ‘mermaid’). He flew on aerial missions to deploy marine robotic vehicles and ocean temperature floats. He published crucial papers, together with his mentor, Dr. **James Overland**. It was a life well lived.

In between his many missions, Kevin never lost interest in historical data, and his passion of scooping records of the early polar explorers, whalers, and mariners for any observations of sea ice, winds, and shifting ice and weather regimes. This was the field where we overlapped and shared passion for. He started a citizen science-driven project to transcribe log-books for the U.S. vessels traveling in the Arctic and North Pacific since the early 1800s. He was instrumental in finding the place of wreckage of the *U.S. Jeannette* under Capt. **George W. De Long** in 1881 in the East Siberian Sea. He was a great person to listen to when we overlapped during these 20 years. He was always an engaged listener of stories about what Indigenous hunters observed about Arctic sea ice under today’s climate change. His was the voice, the insight, and the knowledge that we are to miss badly. Our sympathies go to his wife Kelly, his young sons, and to his many colleagues in Seattle who are mourning his loss.

WILLIAM MICHAEL LOWE (1938–2023) AND ILENE SPENCER LOWE (1942–2022)

Excerpts from obituaries by Gordon Lowe, with notes by Bill Fitzhugh

Bill joined the military in 1956, becoming a proud member of the RCAF. He liked to say that he was an engine changer. Bill met the woman who became his wife, for 59 years, Ilene while stationed in Portage La Prairie. He was a member of the RCAF for 20 years. Upon his retirement in 1976, he moved back to his home town, Port Saunders in northwestern

Newfoundland. In 1978, he became part of the Canadian Air Cadets, obtaining the rank of Captain. Bill was a proud member of the Regular Force and the Cadet Instructor Cadre for 45 years.

After his return to Port Saunders, he worked as harbor master, bus driver, police guard, wharf-builder, and many others. His love was teaching, and he spent 15 years providing instruction for St. John Ambulance First Aid Training, Firearm training, and small boat safety courses throughout the Northern Peninsula and Labrador. Some of Bill's best times were spent with his brothers and friends in the Sleepy Hollow cabin or on his boat, *Blue Star*, lobster fishing.

Ilene was born in Dauphin, Manitoba and in 1963 married Bill Lowe and were blessed with three children, Gordon, George, and Shaunda. As Bill was serving in the Canadian Air Force, they made their home wherever Bill's career took them. Ilene's professional life was nursing.

William Fitzhugh adds: I began working with Bill and Ilene in the mid-1970s when we began keeping *Tunuyak* in Port Saunders, where Tony Morse's Labrador research vessel, *Pitsiulak*, was being berthed at the Marine Center. We soon became fast friends, and when *Pitsiulak* was transferred to the Smithsonian by University of Massachusetts, our captain, **Perry Colbourne**, became a periodic resident of the 'Lowe Palace'. For years thereafter we visited with the Lowes, who followed our activities in the ASC newsletters, and occasionally put us up when breakdowns or other calamities fell our way and required specialized assistance. Above all, Bill and Ilene, and son **George**, became part of the extended Arctic Studies family, providing sustenance, bedding, beer, and untold volumes of information, conversation, and stories. This past July, waving aside health issues, Bill and Ilene invited us to stay with them for a few days while doing surveys of the Newfoundland coast, giving us memories we shall treasure.



Dinner with Ilene and Bill Lowe in mid-July, 2022, at their home in Port Saunders, with Whitney Hadley-Salay, Bella Fermin, Perry Colbourne, and Ben Fitzhugh. Photo by Sarai Barreiro-Argüelles

DOROTHY HARLEY EBER: CULTURAL HISTORIAN

By Bernadette Driscoll Engelstad

The multitude of articles and publications by **Dorothy Harley Eber** (1925–2022) reflect a compelling interest in Inuit biography, oral history, cultural life, and contemporary social issues.



Dorothy Eber. Photo courtesy of Jean Harley

Trained as a journalist, Eber compiled a remarkable repository of Inuit oral history, carrying out extensive interviews with Inuit artists and Elders in communities on Baffin Island and the central Canadian Arctic. 'Looking for the artists of Dorset'—the title of an early article published in the literary magazine *Canadian Forum*—brought Eber to Kinngait (Cape Dorset) in 1971. Interviews with **Pitseolak Ashoona** (c. 1904–1983), the spirited matriarch of Kinngait, culminated in the lively biography, *Pitseolak: Pictures Out of My Life* (1972), followed by an animated documentary produced by the National Film Board (1973). Proud of her own artistic success, Pitseolak encouraged other family members to develop their artistic ability, including her daughter, **Napachie Pootoogook** (1938–2002), her son, sculptor **Kiugak Ashoona** (1933–2014), and granddaughters **Annie Pootoogook** (1969–2016), **Shuvinai Ashoona**, and **Goota Ashoona**. The recent exhibition, *Ashoona: Enduring Art Stories at the Canadian Guild of Crafts* in Montreal (2022), celebrated the family's phenomenal talent presenting artwork by twenty-two of Pitseolak's descendants while the richly illustrated [digital publication](#), *Pitseolak Ashoona: Life & Work*, by **Christine Lalonde** of the National Gallery of Canada provides a fitting tribute to the artist as well as the pioneering work of Dorothy Harley Eber.

Initially published in 1975 and re-issued by McGill University Press in 1993, *People From Our Side: A life Story with Photographs and Oral Biography* was a collaborative undertaking between the Inuit camp leader Peter Pitseolak (1902–1973) and Eber, along with translator Ann Meekitjuk Hanson. Pitseolak's autobiography, hand-written in syllabic script and

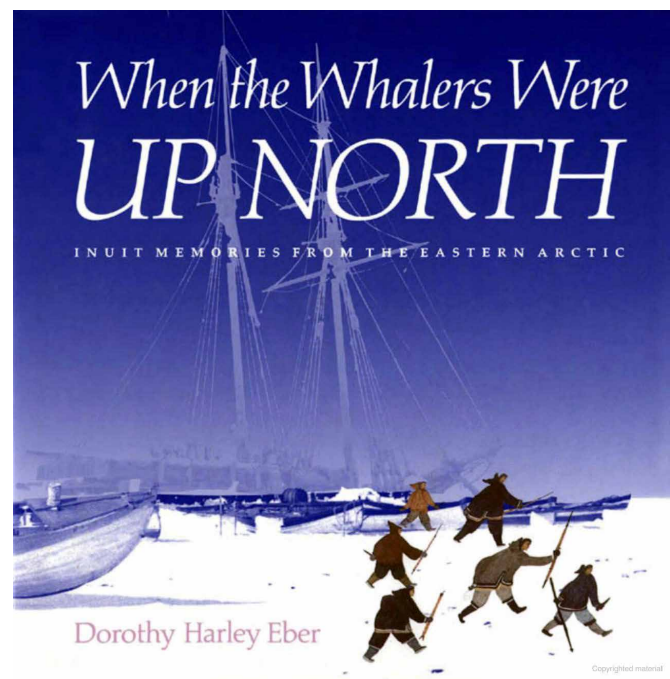
accompanied by black and white photographs taken by Pitseolak during the 1940s and 1950s, comprise a history of 20th century Inuit life in the Seekooseelak region of south Baffin Island. Recording details of camp history, cultural practices, and reflections on the transformational changes taking place throughout the region, the memoir was written by Pitseolak ‘so youth would know the ways of Inuit long ago’. Prompted by **Robert Flaherty**’s visit in the early 1920s, and motion picture films shown by **Donald Macmillan** during a stopover by the Bowdoin expedition, Pitseolak’s photographs include family portraits as well as staged events of seal hunting, ice fishing, setting a fox trap, preparing a qomatik, as well as the staged dramatization of a missing hunter lost on the ice. The quality of the photographs reveals Pitseolak’s passion for the medium and remarkable technical ability, even developing the negatives in an igloo. Concerned over their preservation, Pitseolak presented over 1,600 negatives to the Notman Archives at the McCord Museum in Montreal. The 1980 exhibition, *Peter Pitseolak: Inuit Historian of Seekooseelak*, featured a broad selection of photographs, watercolor collages, prints, and ivory carvings by this versatile artist with extensive texts by Dorothy Eber and **David Bellman**, including photo captions identifying many of the individuals portrayed in the images.

As a cultural historian, Dorothy Eber is perhaps best known for the publication, *When the Whalers Were Up North: Memories of Inuit from the Eastern Arctic* (1989), recounting family memories and childhood interactions with the Scottish whaling crews on Baffin Island and the American whalers on the west coast of Hudson Bay during the late 19th and early 20th centuries. Eber’s personal rapport, combined with the trust of informants and interpreters, provided insight into the transformative effect of the whaling era on Inuit families and hunting culture. The deeply respected Elder, **Joe Curley**—a young hunter at the time of **Rasmussen**’s visit in the 1920s—recounted lively memories of the New Bedford whaling captain, George Comer. Translating for her mother and Eber, **Bernadette Miqquusaaq Dean** was surprised to see for the first time photographs of her grandfather, **Tommy Bruce** as a child, and her great-grandmother, **Siusarnaq** (aka **Shoofly/Nivisannaq**) taken by the whaling captain, **George Comer**, **A.P. Low**, and **Geraldine Moodie**. Together with Elder **Rhoda Karetak**, Bernadette sought out the beaded tuilli (woman’s parka) belonging to Siusarnaq, given by Captain Comer to the American Museum of Natural History in New York in 1906. Amazed at the wealth of Inuit cultural heritage preserved in such a distant museum, she organized a research tour by Inuit Elders and educators to the storerooms of major museums in

New York, Philadelphia, Washington, D.C, Ottawa and Toronto which is recorded in the [documentary](#), *Inuit Piqutingit: What Belongs to Inuit*, co-directed by Dean and Iglulik filmmaker, **Zacharias Kunuk**.

Turning her attention to the legal system in the North, Eber paired sculptures created by Inuit artists (many from Kugluktuk/Coppermine) for the noted jurist, **J.H. Sissons**, with detailed accounts of court proceedings by the NWT Supreme Court held in Inuit communities across the North. *Images of Justice* (1997) features sculptures from the Yellowknife Courthouse collection, including the image of Justice Sissons with book in hand seated behind an inordinately high, long desk. Along with informal commentary from lawyers, interpreters, community members, and others involved in the various cases, Eber’s detailed discussion of court proceedings provide a poignant insight into the effects of the judicial system on Inuit life across the North.

With an ardent interest in Arctic exploration—perhaps reflecting her British ancestry—*Encounters on the Passage: Inuit Meet the Explorers* (2008) is a lively record of Inuit communal memories of Arctic exploration of the British expeditions of **Martin Frobisher**, **William Parry**, **John Ross**, and **Sir John Franklin** as well as the Norwegian expedition of the Gjoa led by **Roald Amundsen**. Known in Kinngait/Cape Dorset as ‘Apirsuqti’, “she who asks questions”, Dorothy Harley Eber has made an invaluable contribution to Inuit cultural history, not only recording the vital memories of Elders, but awakening the curiosity, passion, and interest of the next generation.



JEAN BLODGETT: SHAPING A CURATORIAL VISION OF INUIT ART

By Bernadette Driscoll Engelstad



Through pioneering exhibitions and publications, **Jean Blodgett** (1945–2020) became Canada’s first full-time curator of Inuit Art, building a curatorial framework for the recognition of contemporary Inuit art as a vital expression of Canadian art history. Arriving at the Winnipeg Art Gallery (WAG) in 1975, Jean curated the Gallery’s expansive collection of Inuit sculpture, prints, drawings and textile art by Inuit artists brought together in the 1950s and 1960s by artist/art historian George Swinton and Winnipeg-based botanist, **Jerry F. Twomey**. The Swinton collection, featuring over 1,000 drawings, prints, and sculptures acquired by the WAG in 1965 and 1976, complemented the Twomey collection of almost 3,000 sculptures by Inuit artists from across the Canadian Arctic, purchased by the Province of Manitoba and the Government of Canada in 1971. Along with subsequent acquisitions and donations, this remarkable collection of Inuit art is now celebrated in Qaumajuq, the strikingly designed, newly opened center of Inuit art at the Winnipeg Art Gallery¹.

During a richly productive tenure at the WAG (1975–1979), Jean organized community, thematic, solo, and two-person exhibitions bringing the accomplished work of Inuit artists to the world’s attention. Through an annual series of settlement exhibits, Jean created a meaningful framework in order to highlight the creative work of individual artists, explore the varied use of material resources (e.g., stone, ivory, antler, whalebone), and examine Inuit art production within a social, historical, and geographical context. Fully illustrated, the settlement catalogs (*Port Harrison/Inoucdjouac, 1976–77*; *Povungnituk, 1977–78*; *Repulse Bay 1978–79*; and *Cape Dorset 1980*) documented the Gallery’s collection over time, through the

dedicated work of photographer, **Ernie Mayer**. By recruiting a network of informed contributors (e.g., artists **Pauloosie Kasadluak**, **Madeline Isserkut**, and **Kananginak Pootoogook** as well as **James Houston**, **George Swinton**, **Marybelle Mitchell**, **Terrence Ryan**, **Dorothy Eber**, et al.), Jean provided insight into the artistic development of Inuit art during these early years, particularly, as one commentator noted, ‘given the dearth of writing’ at the time.

In *Tuu’luuq/Anguhadluq* (1976), Jean worked closely with the Sanavik Cooperative in Qamani’tuaq (Baker Lake) and Canadian Arctic Producers (the marketing arm of Inuit art cooperatives) gathering over 120 drawings, prints and textile art by **Marion Tuu’luuq** and her husband, **Luke Anguhadluq**. The twenty-two appliqué and embroidered fabric hangings by Tuu’luuq helped to ensure the recognition of Inuit textile art as a vital and vibrant expression of Inuit women’s creative production. **Karoo Ashevak** (1977) paid tribute to the accomplished work of the young sculptor who tragically perished in a house fire in his home community of Taloyoak in 1974. His masterful sculpture, the ‘*Coming and Going of the Shaman*’ (c. 1973) set the stage for Jean’s curatorial tour de force, a study of shamanism as a subject in Inuit art. Drawing on art works from North American museums and galleries, as well as private collections and northern art cooperatives, *The Coming and Going of the Shaman: Eskimo Shamanism and Art* (1978) featured historic and contemporary works by Inuit artists from across the Canadian Arctic and Alaska. Reflecting on contemporary issues impacting the lives of Inuit across the Canadian Arctic, *Looking South* (1977) and *Eskimo Narrative* (1979) introduced the work of Inuit artists at numerous venues across Canada and the United States

After relocating to Toronto in 1979, Jean shared her curatorial expertise at cultural and academic institutions, including the Art Gallery of Ontario (AGO), Agnes Etherington Art Centre (Queen’s University), Art Gallery of Hamilton, Carleton University (Ottawa), London Regional Art Gallery, the Windsor Art Gallery, and the McMichael Canadian Art Collection. During the early 1980s, Jean carried out artists’ interviews in Kinngait (Cape Dorset) supporting several later exhibitions, including *Etidlooie Etidlooie* (1984) and *North Baffin Drawings: Collected by Terry Ryan on North Baffin Island in 1964* (1986), as well as *Kenojuak Ashevak* (1985), the first commercially published monograph of an Inuit graphic artist. Jean’s early curatorial work undoubtedly strengthened critical interest in Inuit art across Canada.

As Jean’s successor at the WAG (1979–1885), I continued the settlement exhibits featuring the sculpture of artists from Rankin Inlet/Kangirlliniq

(1981); Belcher Islands/Sanikiluaq (1981); Eskimo Point/Arviat (1982); and Baffin Island (1983), as well as work by graphic artists from Qamani'tuaq (Baker Lake) and Ulukhaktuq/Holman, leaving WAG in 1985 to join the curatorial team preparing the 1988 Olympic exhibition, *The Spirit Sings: Artistic Traditions*



of *Canada's First Peoples* at the Glenbow Museum. At this point, Jean returned to WAG and, with **Marie Bouchard**, curated the retrospective exhibition of **Jessie Oonark's** drawings, prints, and textile art, accompanied by a finely researched catalog. In addition, at the request of then-Director **Terrence Heath**, Jean carried out a feasibility study for a proposed Centre of Inuit Art—a dream now realized in the opening of Qaumajuq.

As Chief Curator at the McMichael Canadian Art Collection, Jean oversaw the landmark loan of over 100,000 drawings by artists from the West Baffin Eskimo Cooperative in Kinngait/Cape Dorset, the source for several of Jean's later exhibitions, including *In Cape Dorset We Do It This Way* (1991), *Strange Scenes: Early Cape Dorset Drawings* (1993), and *Three Women, Three Generations: Drawings by Pitseolak Ashoona, Napachie Pootoogook and Shuvinai Ashoona* (1999). Building on this remarkable archival collection, the McMichael has developed a superb [digital program](#) that provides access for registered viewers to research hundreds of drawings by Kinngait/Cape Dorset graphic artists/

After leaving the McMichael, Jean expanded her research in circumpolar art, taking up a teaching appointment at the University of Alaska in Fairbanks and curating the innovative exhibition, *In the Shadow of the Midnight Sun: Sami and Inuit Art, 2000–2005*. At the request of the Alaska State Council on the Arts, Jean prepared the posthumous manuscript culminating the life-work of fellow scholar, **Susan W. Fair** for publication in *Alaska Native Art: Tradition, Innovation, Continuity* (University of Alaska Press, 2006). This beautifully illustrated catalog documents over 250 sculptures, paintings, masks, clothing items, dolls,

baskets and artifacts by Inupiat, Yup'ik, Aleut, Tlingit, Haida, Tsimshian, and Athabaskan artists, many on view in the striking exhibition at the Ted Stevens International Airport in Anchorage.

Throughout a curatorial career stretching over almost 50 years, Jean's outstanding record of exhibitions, catalogues, and artist monographs—worthy of continued review and study—championed the creative imagination and intellectual prowess of Inuit artists while detailing the development of Inuit art as a critical sector of Canadian art history and vital contribution to human history.

¹ – [Qaumajuq](#). For a detailed discussion of the early history of Inuit art at the Winnipeg Art Gallery, see Wight, Darlene, *The Swinton Collection of Inuit Art* (1987); *The Jerry Twomey Collection at the Winnipeg Art Gallery: Inuit Sculpture from the Canadian Arctic* (2003); *Creation and Transformation: Defining Moments in Inuit Art* (2012). The National Museum of Man (now the Canadian Museum of History) also demonstrated an early interest in collecting Inuit art, particularly as an ethnohistorical reflection of Inuit life across the Canadian Arctic.

GEORGE NOONGWOOK, 1949-2023: WHALING CAPTAIN AND A MUSIC KEEPER

By Henry P. Huntington and Igor Krupnik

George Mangtaqli Noongwook, Yupik Elder from Savoonga on St. Lawrence Island, Alaska, passed away on March 18, 2023. George was a drummer, singer, and historian of St. Lawrence Island music; an ardent advocate of Yupik and Inupiaq whaling rights through his role on the Alaska Eskimo Whaling Commission; a dedicated and insightful scholar of his people and their environment; and a man devoted to his family and friends.

George was born in Savoonga in 1949 into a large supportive family of several uncles, siblings, cousins, and other relatives. Like most of his generation, he left home to attend the Mt. Edgecumbe high school in Sitka, Alaska. From there, he enrolled at the University of Alaska Fairbanks, but left because he was unhappy with the way that he and other Alaska Natives were treated. This being the Vietnam War era, George was soon drafted into the U.S. Army. After basic training at Fort Lewis, in Washington state, he was posted to Fort Leonard Wood in Missouri, with the 5th Engineer Battalion. After the Army, he returned to his home community and resumed his life as a subsistence hunter, whaler, and a community spokesperson.

George's whaling career started when he was just 12. At that time, people from Savoonga traveled each spring

to Gambell, the other village on St. Lawrence Island, to go whaling. By the time George came back from the Army, his uncle **Nathan Noongwook** had led Savoonga's effort to resume whaling at the traditional site of Pugughileq. George became a lifelong whaler, and eventually a whaling captain himself. Not surprisingly, the Savoonga Whaling Captains Association selected George to be the community's voice and its representative to the Alaska Eskimo Whaling Commission (AEWC), created in response to the 1977 ban by the International Whaling Commission (IWC) of all aboriginal bowhead whaling in Alaska and Canada.

George spent decades on the AEWC, serving variously as chairman, vice chairman, and in other roles. Doing so required traveling to annual IWC meetings, held all around the world, and often at times conflicting with the annual hunting cycle on St. Lawrence Island. George was a passionate and eloquent advocate for Yupik and Iñupiat whaling rights. Eventually, the ban on aboriginal whaling in Alaska had been replaced with a quota, which meant that the Native whalers had to battle for the quota's renewal every few years. In 2019, George and his fellow AEWC commissioners plus a team of lawyers and scientists traveled to Florianopolis in Brazil, for another IWC meeting. Their goal was to create a permanent quota for Alaskan whalers. George gave an eloquent speech, citing the whalers' desire to provide for their families and communities and to carry on their cultural traditions. The IWC approved the permanent quota, and a major victory was achieved.

It was shortly after his return from the Army that George found his other path. His father once told him that his grandfather **Jimmie Toolie** and uncle Nathan Noongwook wanted to see him at his father's coffee shop. George rushed there to make sure everyone was okay. He was met by a row of singers and drummers and an enthusiastic greeting from Jimmie and Nathan. They explained that they had chosen him to learn the Yupik songs of Savoonga, including the histories of the songs, who composed them, and for whom. At that time, George knew little about the musical traditions of St. Lawrence Island. In his words, "The songs were enthralling, and the dances were beautiful. The songs just caught me up, full of laughter and good feeling."



George Noongwook singing Yupik songs on a visit to Clyde River, Inuit community in Nunavut, Canada in May 2017. Photo by Henry Huntington

Till his last days, George was working with a team of researchers to transfer his extensive music collection to durable media and to document the history of Yupik songs and music.

With his intellectual abilities and interests, George inevitably became involved in several research projects involving St. Lawrence Island. He led local efforts that resulted in the book *Sikumengllu Eslamengllu Esghapalleghput, Watching Ice and Weather Our Way* (2004), as well as the documentation of Yupik knowledge about bowhead whales around St. Lawrence Island. George took part in two major research programs, one about the Bering Sea and one about the northern Bering and Chukchi Seas, as well as many other projects, including the music study mentioned earlier. George approached this work with generosity and good humor. He was also an eloquent writer, deeply in touch with

the cultural and spiritual meaning of his actions. He will be greatly missed by his family, his community, and those of us fortunate to have known him as a friend, a research partner, co-author, and mentor.

AN ARCTIC STUDIES 'THANK YOU' TO OUR RECENT RETIRED COLLEAGUES

As part of the Department of Anthropology, the ASC cannot function without the assistance and knowledge of our colleagues. **Marcia Bakry** provided our books, reports, lectures, and exhibits with informative and stylish illustrations. As head of the Repatriation Program, **Bill Billeck** shepherded relations with Alaska Native communities in the return of collections and human remains. **David Rosenthal** served as Collection Manager for many years and has been instrumental in ensuring the photo documentation, preservation, and access to our arctic treasures. **Laurie Burgess** has for three decades, in various capacities, ending up as co-Chair, kept the Department on a sound managerial track. And **Douglas Ubelaker**, while not getting his hands chapped by Arctic weather, served as Department Chair, edited vol. 3 of the *Handbook of American Indians* and provided assistance to the ASC when advice was needed on matters of human biology and related fields. THANK YOU ALL! Best WISHES AND HAPPY SAILING!

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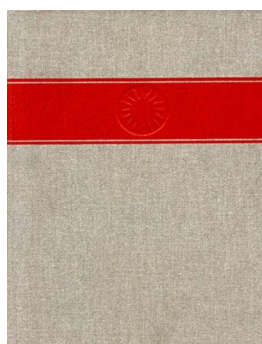
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Handbook of North American Indians, Volume 1: Introduction

New from the Smithsonian Institution, *Handbook of North American Indians, Volume 1* is the ultimate reference book on Native American communities and their past, present, and future. *Volume 1* is the definitive introduction to Native American history and culture, and the much-anticipated opening volume to the Smithsonian's 20-volume *Handbook of North American Indians* series—the largest collection of knowledge on Indigenous peoples of the US, Canada, and Northern Mexico.

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About the Editor: IGOR KRUPNIK is curator of Arctic and Northern Ethnology at the Smithsonian's National Museum of Natural History in Washington, DC. His areas of expertise include the modern cultures, ecological knowledge and cultural heritage of Arctic people, and the impact of modern climate change on Arctic residents.

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Edited by Igor Krupnik

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