

NOTES FROM THE DIRECTOR

By William W. Fitzhugh

Another covid year has come and gone leaving us a bit surprised and bewildered. Breaks in the COVID-19 waves in 2021 had us launching field plans, experimenting with office returns, and getting ‘boosted’. The jabs promised a return to normalcy, or at least a new normal, fortified by zooming technology and hybrid conferencing. Now we’re able to talk and listen instantaneously around the world with few or no conference fees. The sky was clearing, and the future looked bright—that is, until Omicron appeared, and we were hauled back into lock-down.

The ASC survived a second covid year, and thanks to the miraculous appearance of vaccines and diligent isolation, none of us fell ill. You might say we thrived in our capsules. We’ve grown closer to our immediate and distant families and had fewer distractions. Meetings are shorter and more productive, and commuting has been replaced by a couple of clicks, leaving those of us with empty nests more time to read and write.

In this respect, our ‘mature’ ASC crowd may have advantages not available to colleagues with youngsters.

This year our major activity surrounded the hundred-year anniversary of the Danish Fifth Thule Expedition (FTE) of 1921–24, a research enterprise that laid an extraordinary foundation for all subsequent anthropological research in Arctic North America. For the past several years, **Igor Krupnik**, assisted by **Aron Crowell**, laid the groundwork for an FTE retrospective,

beginning with a 2019 centennial symposium in Nome, Alaska, bringing together colleagues from Denmark, Canada, Alaska, and the Lower 48, including Inuit whose ancestors hosted the expedition. Crowell and Krupnik edited the Nome proceedings for a special double issue of *Alaska Journal of Anthropology* (19:1-2) released in September.

To initiate the first year of the FTE centennial, we invited Dr. **Mari Kleist**, a Greenland Inuk assistant professor at Ilisimatusarfik/University of Greenland, Nuuk, to give our annual Tiger Burch Memorial Lecture. Delivered on 15 December, her talk, “The Expedition Would Not Have Succeeded Without Them”, demonstrated the crucial role played by the Inuit/Inughuit participants in the expedition.

Heretofore, credit for this mammoth undertaking has been attributed to its scholarly leaders, especially **Knud Rasmussen**. Kleist’s talk and the papers of the AJA volume document in detail, for the first time, the contributions of Inuit participants as translators, knowledge providers, and full expedition partners.

In his third year as anthropology department chair, and in addition to his FTE activities, Igor finished editorial work on Volume 1 (Introduction) of the *Handbook of North American Indians* series, and *Arctic Crashes: People and Animals in the Changing North* (2020) received the museum’s book award for 2021. In addition to scholarly activity and supervising staff and operations, Igor led the Department of Anthropology’s response to changes in our relationships with constituents, particularly with Indigenous communities. In addition, this year, responding to the national dialogue concerning racism, equity, and endemic issues of disrespect, our physical anthropologists conducted a



Knud Rasmussen visiting Washington DC with Arnarulunnguaq (“Little Girl”) and Qaavigarsuaq (“Eider Duck”) after completing the Alaskan leg of the Fifth Thule Expedition. Smithsonian Archives photo

comprehensive review of African American human remains held at NMNH. Concern about institutional involvement in colonial attitudes and issues of representation resulting from past collecting practices, and appropriate research and exhibition activities, have brought new challenges to the museum. Our collections are no longer inaccessible; their images and histories are available for all to see. Curators, conservators, collection managers, and museum officials are discovering Smithsonian collections have attracted the interest of others besides scholars, students, and indigenous groups. Many sectors of the public, especially source communities and media, are taking an interest in Smithsonian collections for the first time.

As a result, across the museum world we need more transparency and new collection policies to redress errors of the past and strengthen Indigenous and constituent relationships. Anthropology is not unique in this regard. Other NMNH departments and Smithsonian museums are also engaged in introspection, establishing standing committees and working groups, discovering issues the Institution never adequately considered. This is, in fact, a remarkable time, one full of discussion, rehabilitation, and hope. Covid demanded physical isolation, but it also encouraged new ways of thinking, stimulated connectivity, awakened sensibilities, and is producing institutional change.

Along these lines, Aron Crowell completed his third year of service on the Advisory Committee for the NSF Office of Polar Programs and joined its Subcommittee on Diversity, Equity, and Inclusion, which will make recommendations to NSF on initiatives to increase participation by underrepresented groups in Arctic and Antarctic research. Crowell joined the NMNH task forces on Science Culture and Structure, aimed at changing the institutional culture of science at NMNH. He also completed a draft report on his NSF-funded archaeology and Indigenous knowledge research at Yakutat in Southeast Alaska. The project exemplifies multidisciplinary collaborative research and knowledge co-production with Indigenous communities. **Dawn Biddison** received the 2021 Museum Award from Museums Alaska for work

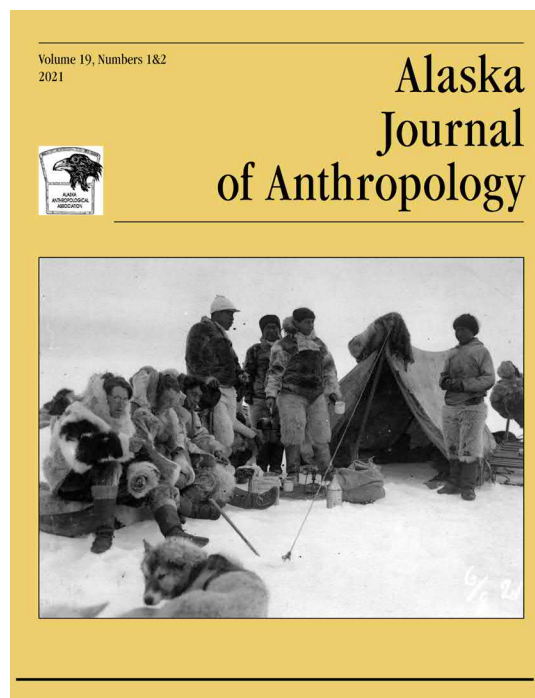
since 2012 on the Material Traditions' series with Alaska Native artists, students, and communities. She organized webinars with the Inuit Art Foundation and others on Alaska Native land acknowledgment and cultural appropriation. Her "Voices from Cedar" materials are on the "Smithsonian Arctic Studies Center in Alaska" website on the SI Learning Lab.

Covid isolation gave me a chance to complete several long-term projects. With **Gracie Ramsfield**, I finished editing **Wilfred Richard's** autobiography, *Northern Light: My Life Behind a Lens*, co-published with IPI Press in Vermont. Illustrated with Will's photos from a lifetime of northern travel, the book argues for environment sanity and cultural sustainability. Assisted by **Olivia Box**, I edited an English translation of

Jamsranjav Bayarsaikhan's monograph *Deer Stones of Mongolia*, and with Bayaraa published an article on Mongolian deer stones. My report on an 1820s homestead in the Fairlee VT forest appeared, and I began work at a second site and produced a small exhibit for the local school and town. In Canada, my absence on the Quebec Lower North Shore was filled by SSHRC-SI Fellow **Francisco Rivera**, who conducted industrial archaeology of the St. Paul 19th century cod fishery. In February 2022, **Jesse Casana**, Aron Crowell, **David Nordlander**, and I re-submitted a revised Arctic Digital Library proposal to NSF with Dartmouth College, Anchorage Museum, Sealaska Heritage, and the Kitikmeot Heritage Society of Cambridge Bay, Nunavut, as partners. Burch 2020 lecturer **Brendan Griebel**

provided our link with Kitikmeot. Aron and I submitted a parallel ADL proposal to NMNH.

Meanwhile, the ASC doubled down on several exhibition projects. **Stephen Loring** collaborated with **Elisa Palomino Perez** to produce a traditional Alaskan fish-skin technology display for the Smithsonian's "Futures" exhibition in the renovated Arts and Industries Building. Stephen and I, along with **Rob Mullen** and others, provided guidance for a SITES (Smithsonian Traveling Exhibition Service) exhibition coordinated by **Carol Bossert** on boreal forest ecology and preservation titled *Knowing Nature: Stories of the Boreal Forest*. Stephen



*Special Issue: From Greenland to the Pacific:
Centennial of The Fifth Thule
Expedition 1921–1924*

also served as anthropologist on the forthcoming NMNH exhibition, *Lights Out: Recovering Our Night Sky*.

Our research associates kept us connected to Arctic colleagues and fellow institutions. **Amy Phillips-Chan** published her book *Our Stories Etched in Ivory*, designed by **Igor Chechushkov**, in our Contributions to Circumpolar Anthropology series. **John Cloud** and Elisa Palomino Perez conducted research at the Museum of Anthropology in Florence, Italy, established in 1868, becoming the world's first museum of anthropology. John published an article on Indigenous cartography in *Calafia*, the journal of the California Map Society. Our former SI colleague **Susan Rowley** was appointed Director of the Museum of Anthropology at the University British Columbia. **Ted Timreck** finished a film featuring forty years of ASC research titled *Ancient Sea Peoples of the North Atlantic*. **Ann Fienup-Riordan** published *All the Land's Surface Is Medicine: Edible and Medicinal Plants of Southwest Alaska* with co-authors **Alice Rearden, Marie Meade, Kevin Jernigan, and Jacqueline Cleveland**, as well as a second book, *Ircenrraat/Other-Than-Human Persons in Southwest Alaska* with **Alice Rearden, Marie Meade, and Mark John**. As editor of the *Alaska Journal of Anthropology*, **Ken Pratt** oversaw production of the *Fifth Thule centennial* volume described above. He also conducted research on former boarding schools in Alaska for a report responding to the "Federal Indian Boarding School Initiative" issued by the US Secretary of the Interior in June 2021.

Our archaeology associates have also been busy. **Chris Wolff** took on editorship of *Northeast Anthropology* and wrote reports with **Donald Holly** and **Stephen Hull** on Newfoundland Dorset and Beothuk archeology, and on subsistence and longhouses in the Archaic of the Far Northeast. After a 2-year covid hiatus, **Bill Honeychurch** will continue his interrupted NSF-supported study of climate, human, and ecosystem interactions during the Turkic and Mongol Empires in Mongolia. In Labrador, **Anthony Jenkinson** continued work at the Shukapesh site in Sheshatshit (North West River) and an Early Archaic Mistanuk caribou ambush site at Kamestastin.

As this issue is being printed, we face new challenges triggered by the Russian invasion of Ukraine that began on February 24, 2022. The ASC itself is a child of the 'Crossroads Era,' an outcome and a symbol of the new spirit of partnership built in the aftermath of the opening of Siberia and the Russian Arctic since the late 1980s and early 1990s. We have achieved much in the following decades, thanks in part to our strong connection to colleagues across the Arctic, including in Russia. Since the war started, many links have been put on hold; the Arctic Council and IASC suspended its

collaboration with Russian agencies and institutions, and the future of many research projects is in doubt. How these events will affect us and our Russian and Ukrainian colleagues will be reviewed in our 30th year issue.

Sad news came from Anchorage, Alaska while we have been preparing this issue for printing. Dr. **Gordon L. Pullar**, age 78, passed away on April 18, 2022, after a long illness. As we do not have enough space in this issue, we will do proper respects for Dr. Pullar in our 2023 Newsletter.

And with this round-up, we encourage you to explore "ASC 2022" in the following pages!

INCREASING DIVERSITY, EQUITY, AND INCLUSION IN SCIENCE: CURRENT INITIATIVES AT THE SMITHSONIAN AND NATIONAL SCIENCE FOUNDATION

By Aron L. Crowell

The underrepresentation of women and minoritized communities in science, technology, engineering, and mathematics (STEM) is a persistent and widely recognized issue in the United States (Bernard and Cooperdock 2018; National Academies of Sciences, Engineering, and Medicine 2019, 2020). In a recent report to Congress, the Committee on Equal Opportunities in Science and Engineering (CEOSE) compared sectional representation in STEM to shares of the U.S. population, employing U.S. Census Bureau categories (CEOSE 2021). According to the study, underrepresented groups include Black women (1.8% of the STEM workforce vs. 6.7% of the population), Black men (3.3% vs. 6.3%), Hispanic women (2.4% vs. 9.1%), Hispanic men (5.1% vs. 9.5%), and White women (17.7% vs. 29.6%).

Similar findings were reported by the Pew Research Center (Fry et al. 2021), which in addition documented sizeable pay differences in STEM fields by gender, race, and ethnicity. Disparities in STEM arise from social attitudes, discrimination, harassment, explicit and implicit biases, differential access, and systemic racism that can hinder scientists at every stage of their education and careers.

At the Smithsonian, equity issues have been brought to the fore by Secretary **Lonnie Bunch**, whose initiatives include the national forum "Our Shared Future: Reckoning with Our Racial Past" and the SI Civil program for reporting and mitigation of workplace bias and harassment. Other current efforts focus on raising awareness and seeking solutions within the Smithsonian scientific community, which includes personnel in all roles and departments at the National

Museum of Natural History, Smithsonian Tropical Research Institute, Smithsonian Marine Station, and other research branches.

In 2021, the NMNH Advisory Council for Inclusion, Diversity, Equity, and Accessibility (IDEA Council) conducted an employee survey which found generally encouraging results, including that more than 90% of respondents felt that “my coworkers/peers treat me with respect” and “I value inclusion, diversity, equity, and access (IDEA) in the workplace.” However, 18% disagreed with the statement that “At NMNH, my identity characteristics have never been a barrier to professional growth opportunities,” signaling a perception of biases in hiring, promotions, full equity with peers, and advancement to leadership roles. About the same number (17%) reported having experienced unacceptable identity-based treatment in the workplace and 24% had witnessed such behavior. The IDEA Council is developing recommendations to address these concerns, including training for museum leadership and staff.

The NMNH Senate of Scientists’ Committee on Diversity, Antiracism, and Belonging (CDAB) is also contributing to this effort. In February 2021 CDAB sponsored a webinar on equity, inclusion, and institutional change, led by consultant **Desiree Adaway** and attended by nearly 200 NMNH staff members. Adaway received widespread praise for the inspiration, clarity of ideas, and transformational strategies she presented. In a CDAB discussion in March 2022 speakers addressed issues of racism and exclusion relating to collections at NMNH, including ethical responsibility for repatriation of African American human remains in the biological anthropology collections (**Amanda Lawrence**); colonial legacies and shared stewardship of the national fossil collection, largely extracted from Indigenous lands in the Great Plains (**Kathy Hollis**); and the role of Indigenous knowledge, science, and cultural practices in research and collections management (**Dorothy Lippert**).

NMNH task forces on Science Culture and Science Structure, initiated in response to an external Visiting Committee evaluation in 2019, were also launched in 2021 under the executive leadership of NMNH Associate Director for Science **Rebecca Johnson**.



Mellisa Maktuayaq Johnson

The task forces designed a peer-to-peer process to share experiences and gather suggestions for cultural and structural reform, including more than 30 small group listening sessions led on Zoom by task force volunteers. The NMNH Anthropology Department was represented on the Science Culture group by Dorothy Lippert (co-lead with **Nick Pyenson** of Paleobiology), **Josh Bell**, **Laurie Burgess**, Amanda Lawrence, and

Mark White; I also played a small role. Insights from the listening sessions will shape recommendations to NMNH leadership on building a culture of mutual respect, increasing diversity, improving communication, transparent decision making, and ensuring equity in opportunities for professional growth and advancement. For me, the listening sessions clearly demonstrated how much those who work at NMNH take pride in their institution but also want to see it grow and change.

On behalf of the Smithsonian and the Arctic Studies Center it has also been my honor to serve since 2018 on the Advisory Committee for the Office of Polar Programs (OPP) at the National Science Foundation, and since 2020 on the OPP diversity, equity, and inclusion (DEI) subcommittee. As the lead science funding agency, NSF accepted the challenge of increasing diversity in the nation’s scientific community more than four decades ago when it established CEOSE to encourage “full participation of women, minorities, and persons with disabilities in scientific, engineering, and professional fields.”

In subsequent years NSF investments under the umbrella of Broadening Participation have included funding for STEM education at all levels, research and fieldwork opportunities for undergraduates and emerging scientists, partnerships with minority-serving institutions of higher learning (for example, historically Black colleges and universities), and other initiatives, with an annual budget that currently exceeds \$1B. NSF recently set up INCLUDES, aimed at increasing diversity in STEM education through alliances of educational institutions, professional organizations, and communities, and ASPIRE, aimed at building diverse university faculties.

The DEI subcommittee on which I now serve is reviewing the extent to which NSF’s efforts to build diversity in science can be more widely and effectively implemented in Arctic and Antarctic research, which includes virtually all scientific

disciplines from anthropology to atmospheric science, geosciences, deep space research, biology, zoology, and ecology. Notable current grant programs include Navigating the New Arctic, which funds convergent research often involving collaboration with northern Indigenous communities. At the same time, a review of proposal submissions and other indicators of participation and leadership in the polar sciences over past years indicate some of the same patterns of underrepresentation that are evident in the national statistics. The subcommittee is now preparing its report and recommendations for innovative strategies to ensure that the polar research community offers opportunities to all and benefits from the creative input of scientists of all backgrounds.

The Arctic Studies Center in Alaska is also pleased to welcome **Mellisa Maktuayaq Johnson**, who is now based in our Anchorage office as the Indigenous Engagement and Communications Specialist for the Interagency Arctic Research Policy Committee (IARPC). Mellisa's work will focus on research coordination between Alaska Native communities and agencies such as the Eskimo Whaling Commission with federal bodies including the Department of the Interior, Environmental Protection Agency, National Oceanic and Atmospheric Administration, and Bureau of Ocean Energy Management. Coming from a professional background in community health, education, non-profit management, and Iñupiaq language teaching, most recently with the Bering Sea Elders Group and University of Alaska Anchorage, Mellisa's appointment represents another welcome step toward diversity and Indigenous engagement in Arctic science.

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Black People Pursuing Careers in Science, Engineering, and Medicine: Proceedings of a Workshop. The National Academies Press, Washington, DC.



THE FIFTH THULE EXPEDITION CENTENNIAL

By Bent Nielsen and Igor Krupnik

The Danish Arctic Institute (Arktisk Institut) in Copenhagen launched a new website in 2021 dedicated to the centennial of the Fifth Thule Expedition at www.5thule100.dk. The site in Danish and English provides updates on the FTE centennial program, primarily in Denmark. It includes: 1) a report on an FTE anniversary exhibit at Knud Rasmussen House in Hundested north of Copenhagen (May 1 to October 24, 2021) displaying photographs, documents, and maps from the Rasmussen archive at the nearby town of Frederiksværk; 2) a *Northern Lights (Nordlys)* Festival (September 17–19, 2021) organized by the National Museum of Denmark that included podcasts, films, exhibit tours, crafts, music, and food related to the Arctic and Inuit culture; 3) a preview of the forthcoming 2023/2024 FTE exhibit planned by the Danish Arctic Institute celebrating the expedition with their voluminous collections; 4) an overview of Danish FTE archival holdings by Bent Nielsen; 5) a new teaching unit titled *Discovering New People* describing life in the Arctic during FTE and today, for release in March 2023; and 6) new publications including the *Alaska Journal of Anthropology* (2021, Vol.19), the new book by **Knud Michelsen**, *Ambassador on Dog Sled* (2021, see this issue), and another book in Danish, *Rejsen til det Oprindelige Folk/Journey to the Original People*. Read more about FTE in this and next year's 2023 *Newsletters*.

EDITORIAL NOTE

If you are receiving this *Newsletter* in the postal mail and would prefer getting it electronically, and in color, send your email address to: NMNHArcticStudiesCenter@si.edu



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To make a tax deductible contribution, please contact the NMNH Office of Development at 202-633-0821 or NMNH-Advancement@si.edu

BURCH ENDOWMENT

ERNEST S. BURCH ENDOWMENT SUPPORT FOR ASC ACTIVITIES IN 2021

By Igor Krupnik

The Ernest S. ('Tiger') Burch Endowment with the Arctic Studies Center (ASC) was established 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 continues. As in previous years, the Burch Endowment remained the prime source of funding for various ASC operations in 2021. Due to the COVID-19 pandemic restrictions, many regular activities by the ASC staff were put on hold. For the entire 2021 (actually, since March 2020), all activities were conducted via teleworking, online conferences and other electronic channels. That, in turn, allowed the ASC to re-direct some of the Endowment funds to support other activities, such as publications, or to save it for future use as soon as travel and fieldwork restrictions are lifted.

As in the previous years, the Burch Endowment supported the ASC main annual public event called "Tiger Burch annual lecture" that promotes Arctic anthropological research to wider audiences and to our colleagues worldwide. Beginning in 2014, the "Tiger Burch Lecture" has emerged as one of the key events that ASC hosts for the Museum community and the public. The 2021 annual 'Burch Lecture' was delivered on December 8, 2021, by Greenlandic scholar, Dr. **Mari Kleist** (see below). The lecture explored the role of several Greenlandic Inughuit and Kalaallit participants whose contribution to the Fifth Thule Expedition of 1921–1924 has been underappreciated.

In 2021, the Burch Endowment also provided much-needed matching funds to the production of two publications stemming from research by the ASC members, as well as their associates and partners. The first book, *Our Stories Etched in Ivory / Qulip 'yugut Iksiaqtuumaruaq Tuugaami: The Smithsonian Collections of Engraved Drill Bows with Stories from the Arctic* (2021, **Amy Phillips Chan**, ed.—see this issue) is an illustrated catalog of precious decorated objects (engraved bow drills) from the Smithsonian collections. The book features numerous illustrations and includes comments by Indigenous Alaskan carvers (with their portraits), who shared their experience in heritage ivory carving. The second collection was a special volume of the *Alaska Journal of Anthropology*

edited by **Aron Crowell** and **Igor Krupnik**, titled *From Greenland to the Pacific: Centennial of the Fifth Thule Expedition, 1921–1924*. Like Dr. Kleist's lecture, this was a part of the ASC "Fifth Thule Expedition Centennial" program that began in 2018; its many elements have been funded primarily by the Burch Endowment.

For the two publications, the endowment funds covered graphic work and portions of the distribution expenses.



Mari Kleist

The Burch Endowment continued to provide funds for other ASC operations, such as the publication of the annual ASC Newsletter (No. 28 published in summer 2021), the ASC membership in the Arctic Consortium of the United States (ARCUS), and research work for other ASC-based projects. We plan to continue using Burch Endowment funds to advance our research and public programs, in conference travel and fieldwork for the ASC staff and associates, and to promote Tiger Burch's legacy to the international Arctic research community via publications, conferences, professional exchanges, and our annual Newsletter.

BURCH LECTURE

The 2021 Ernest S. Burch Jr. Lecture was presented by Dr. Mari Kleist. Mari is Assistant Professor at the Department of Cultural and Social History, Ilisimatusarfik (University of Greenland). An Inuk from Nuuk, Mari holds a PhD in Archaeology from the University of Copenhagen and has worked on archaeological projects across Canada and Greenland. Her research interests include developing greater community involvement and full Inuit partnership in research projects. Mari is currently co-directing a research team partnered with the Inughuit people of Avanersuaq (Northwest Greenland) on a project about Inughuit Creativity and Environmental Responsiveness. A shortened version of her Burch Lecture is presented below.

“THE EXPEDITION WOULD NOT HAVE SUCCEEDED WITHOUT THEM”: THE CRUCIAL ROLE OF THE INUIT/INUGHUIT PARTICIPANTS OF THE FIFTH THULE EXPEDITION ACROSS ARCTIC NORTH AMERICA, 1921–24

By Mari Kleist

I would like to begin by recognizing that the Inughuit and Inuit who have come before me are the very reason I am presenting now. I express my deep gratitude for the Kalaallit members of the Fifth Thule Expedition (FTE) whose vast knowledge and incredible skills were essential to the expedition’s success, which brought international attention to what we now know as Arctic North America and the peoples that call it home. I would also like to express my sincere gratitude for the descendants of the Fifth Thule Expedition participants, the Inughuit of Avanersuaq. I am grateful to share part of their ancestor’s stories.

Background

I will start by introducing my objectives and provide some background on the FTE and exploration in Arctic regions and will then move on to the Kalaallit participants and what we know about them. I use Kalaallit to refer to all Inuit from Kalaallit Nunaat, and Inughuit when referring to the unique histories and lifeways of those from northwest Greenland.

My goal is to draw attention to the Kalaallit members of the expedition, recognizing their contributions and sacrifices on an equal level to their Danish counterparts. The popularized narrative of the Fifth Thule Expedition has been shaped by colonial tendencies and value systems and the focus has been on the accomplishments of Danish members trained in Western Science. This has produced a white-washed version of history which marginalized Kalaallit experience. It is time to change this narrative.

To gain a more holistic and accurate understanding of the expedition it is important to deconstruct the common narrative, to acknowledge the social context in which it has been shaped and whose voices have been missing—the Kalaallit participants. We must look at their roles, their intentions, recognize their agency, and ensure they are credited. To do so not only is significant for our understanding of historic events; it helps to break the colonial legacy of our discipline. Rasmussen has been hailed as the “undisputed king of the long-haul Arctic expedition”, and Danish crew members are celebrated as expedition heroes for their scientific and anthropological “discoveries”. Inuit deserve the same opportunity to pay tribute to our own expedition heroes.

It is discouraging to realize that there is little documented about the Inughuit and other Inuit participants. Their stories, for example their reasons for participating or their experiences or views are more or less unreported in expedition history. It is time to dig deeper into the archives and collect Inuit oral histories. In this paper, I share some of the histories of the Kalaallit participants that I have collected from various sources, including knowledge shared by their families.

Why do we know so little of the Inuit and Inughuit expedition members? The Arctic has been a place where long-distance trade took place between pre-Inuit and Inuit groups. Inuit knowledge derives from intimate familiarity with the changing trends in the Arctic landscape including seasonal changes. Later the Arctic became a place of interaction with Europeans, Euro-Americans, and Russian explorers and colonizers. Explorers needed guidance and help from Natives to ensure successful expeditions. Inuit provided fundamental skills and knowledge that enabled the explorers to survive and navigate the Arctic environment. But these Inuit, as crucial as they were, were often overlooked, and their contributions were minimized or excluded from public discourse because the results were written by non-Arctic people following Western standards, people who were products of their time and contextualized their history of exploration and colonization from a European and Euro-American point of view, choosing what they saw as important to disseminate.

As geopolitical interest in the Arctic grew, exploration of natural resources, including ethnographical, anthropological, and archaeological investigations, rapidly advanced. **Knud Rasmussen** initiated the FTE to seek and document the origins and connections between all Inuit groups, based on their “ancient Inuit” way of life, from Greenland to the Bering Strait. With the FTE, systematic Danish research became established and saw an immense amount of data collected, making the FTE one of the best-known and most successful scientific expeditions to the North American Arctic. These advances, including the FTE, could not have succeeded without the help of Inuit who constantly lived their lives in these regions. The assessments and decisions Inuit made every day enabled these expeditions to survive and succeed, and without the Inuit role we would not have our current knowledge the Arctic.

Who Were They and What Were Their Roles?

The crew from Kalaallit Nunaat provided expertise for fundamental logistical tasks like navigation, dog sledging, hunting, procurement of animals and materials, and mending and making skin clothes and



Navarana
Photo: N.P. Sørensen.
Danish Arctic Institute



Arnannguaq
National Museum of Denmark



Arnarulunnguaq
National Museum of Denmark



Aqattaq
National Museum of Denmark

Inughuit female expedition members



Aajako
Danish Arctic Institute



Iggiannuaq
Source: Mathiassen 1945



Nasaatsorluarsuk
National Museum of Denmark



Aaqqioq
National Museum of Denmark



Qaavigarsuaq
National Museum of Denmark



Jakob
National Museum of Denmark

Inughuit/Inuit male expedition members

kamiks (boots), translating, and assisting in many other ways that ensured the survival of the crew.

Rasmussen had a great knowledge of the Inughuit lifestyle and knew how skilled they were at hunting prey and driving their sledges. Rasmussen made a wise decision to travel with Inughuit. In 1920 he selected Inughuit and had them prepare for the journey by producing skin clothes, sleds, tools, dog food, and assembling the dog teams. The four Inughuit women included **Navarana**, **Arnarulunnguaq**, **Arnannguaq**,

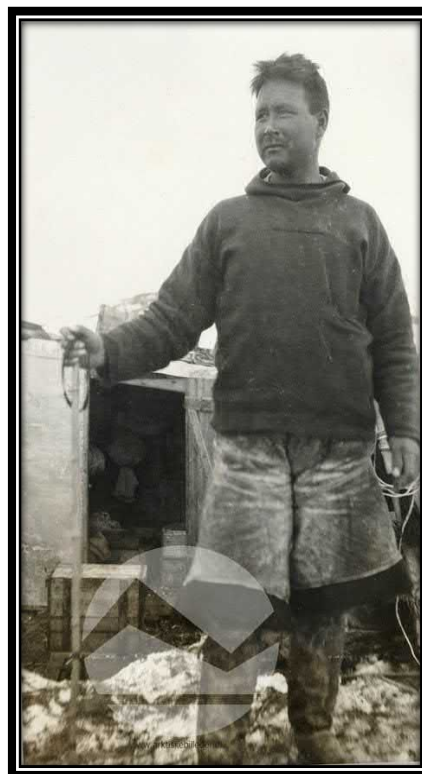
Aqattaq, and the men included **Aajaku**, **Iggiannuaq**, **Nasaatsorluarsuk**, **Aaqqioq**, and **Qaavigarsuaq**—all are names we should remember and know. Rasmussen selected **Jakob Olsen** (*Jákúnguak*), whom he knew to be an excellent kayaker and dogsled driver, to act as translator/interpreter. Unfortunately, three Inughuit passed away before leaving Kalaallit Nunaat. While traveling to Nuuk, where the expedition journey would start, the Inughuit came down with pneumonia and were hospitalized in Upernavik and Nuuk. Navarana passed away in Upernavik Kujalleq, and Iggiannuaq

in Nuuk. When they reached the expedition's Canadian Arctic base camp "Blæsebælgen" at "Danish Island/Danskeøen" called Ullersuaq by Inuit in Nunavut, the Inughuit were still convalescing.

Arnarulunnguaq wife of **Iggiannnguaq** (**Arnarulúnguak** and **Iggiánguak**), also called Fokina by the Danes, was born around 1896 in Avanersuaq. Her father passed away when she and her three older brothers were only young children, leaving no adult male provider. According to the norms of the time, bereaved mothers would be forced to kill their youngest children or female children to spare them from starvation when survival was threatened by famine. This fate almost befell Arnarulunnguaq, but her brother, Aajako, came to her rescue and begged his mother to let her survive.

Arnarulunnguaq's husband Iggiannnguaq was born around 1883. Like Arnarulunnguaq, he was lucky to survive as when he was only around eight years old his mother Sujuluk lost her husband, leaving her without a provider. She had no other option than to kill Iggiannnguaq's younger siblings. Later, Sujuluk had another son, Ivik, with her second husband. Iggiannnguaq on his mother's side was a cousin of Minik (Wallace) who travelled with Robert E. Peary in 1897. Iggiannnguaq began traveling with Rasmussen in 1903. Iggiannnguaq was a local hunter in Avanersuaq and had travelled with Peary. It came as no surprise when Rasmussen chose him to take over his deceased brother-in-law, Aajaku's, place. But then, tragically, Iggiannnguaq died from pneumonia while in Nuuk on September 6, 1921, the day before the expedition left for Inuit Nunangat/Arctic Canada. Iggiannnguaq had to be baptized before he could be buried, and the priest, Gustav Olsen, and Rasmussen agreed they would baptize him the next day, right before his funeral. The rest of the unbaptized Inughuit, except for the youngest participant, Aqattaq, were also baptized. Rasmussen tells how Arnarulunnguaq insisted on participating rather than being left among strangers in Nuuk. Probably she knew the journey would keep her from dwelling too much on the loss of her husband and brother. Rasmussen recalled: "she had to travel to forget."

Arnarulunnguaq and her cousin Qaavigarsuaq accompanied Rasmussen until the end of the expedition in Alaska. She was one of the most experienced in processing skins and had many other talents that received high praise. In addition to cooking and clothing maintenance, she was an acute observer and assisted scientific collecting and care of botanical and zoological materials; helped excavate house ruins at the Malerualik archaeological site on King William Island; collected information from locals; and documented female tattoos. Upon arrival in Denmark in November 1924 she was hospitalized in Copenhagen, diagnosed



Jakob Olsen

with tuberculosis. She returned to Ummannaq in 1925. On April 9, 1928, she married Karl (Kâlîpaluk) Peary, Robert Peary's son by his Inughuaq wife, Aleqasina. Arnarulunnguaq never fully recovered from her illness and died in 1933 in the hospital in Ummannaq. She and Kâlîpaluk never had children, and Kaalîpaluk later said Arnarulunnguaq never talked about her 3.5 year-long expedition.

Aqattaq and **Nasaatsorluarsuk** (**Akátak** and **Nasaitsoordluarsuk**). Aqattaq was the youngest expedition member and was Nasaatsorluarsuk's wife. Aqattaq's parents were **Talilánguak** and **Nujaliánguak**, and her only sister was **Kiajúnguak**. She was born around 1907 in Ummannaq and was only about 14 when she left Avanersuaq to participate in the expedition. She was the least experienced female expedition member and often tended camp while others were traveling. Her husband, Nasaatsorluarsuk, also called Boorsimaat/Bådsmand, meaning boatswain, was born around 1897 in Ummannaq. Knud Rasmussen knew him since he was a small boy and treated him like a foster son. As a young man, Nasaatsorluarsuk participated in Rasmussen's Second Thule Expedition (1916–18) as guide, hunter, and sledge driver. Rasmussen described Nasaatsorluarsuk as one of the best seal hunters he knew. Although he often was the last one to get up in the morning, he would always make up the lost time working late in the evenings

after everyone else had retired. On their return from the expedition, Nasaatsorluarsuk and Aqattaq lived in Sukat in Avanersuaq. They had a son, **Talilánguak Ajørssalik Minigssuak Daorana**, born on March 30, 1925. When their son was only seven years old, Akátak died on August 8, 1932, from tuberculosis in Siorapaluk. In 1935 Nasaatsorluarsuk married **Nadúk** but they later divorced, after which he lived with a woman named Helene for the rest of his days. Nasaatsorluarsuk passed away in 1975 in Qaanaaq.

Arnannguaq and **Aaqqioq (Arnánguak and Árkiok)** were the oldest and most experienced couple. Arnannguaq was born between 1894 and 1896. She was the most experienced in domestic chores, excellent in making and mending skin clothes. She was very cheerful and lifted everyone's spirits. Her husband **Aaqqioq** was born around 1891 in Avanersuaq and had travelled on expeditions, sometimes with **Peter Freuchen**, whom he had known for 14 years before the FTE. Aaqqiorsuaq was known as a skilled hunter and sledge driver, pleasant and encouraging.

Arnannguaq and Aaqqioq had a daughter on August 9, 1923 at Ullersuaq/Danskeøen whom they named **Navarana**. She was baptized when they returned home on March 1, 1925, in Ummannaq and later had a second daughter, **Mikivsuk**, born on May 17, 1927. Aaqqioq took part in another expedition in 1930 led by the German geologist, **Hans Krüger**, and his Danish assistant, **Åge Rose Bjare**. The project investigated western Umimmaat Nunaat (Ellesmere Island), but the expedition failed, and neither Krüger, Bjare, nor Aaqqioq were ever found. It is suspected they died in an accident on Meighen Island. Arnannguaq was left with her daughters Navarana and Mikivsuk, but Navarana died from pneumonia on August 26, 1933, just after she turned 10 years old. Arnannguaq also died from pneumonia, in 1955, in Qeqertat, where she is buried. Her second daughter Mikivsuk had six children.

Qaavigarsuaq Miteq (Kaivigarssuak Mitek) was born in 1899 while his parents lived, together with other expedition members, on board **Robert Peary's** ship. Qaavigarsuaq's mother was Inaluk and was married to **Angutikavsak**, but Angutikavsak passed away when Qaavigarsuaq was only a little boy. His mother then married **Akumalik** who raised Qaavigarsuaq as his own. Qaavigarsuaq never found out who his biological father was, other than being European. His descendants thought Qaavigarsuaq's father was probably **Robert Bartlett**, the well-known Newfoundland captain who traveled with Robert Peary for the first time in 1898. Qaavigarsuaq's mother **Inaluk** died shortly after Qaavigarsuaq left for the FTE, leaving behind her sons **Ulloriaq**, **Inukitsorujuk** and Qaaviarsuaq.

Rasmussen first met Qaavigarsuaq as a young boy during the Literary Expedition in 1904. Danes referred to him as **Edderfuglen** (eider), as his second name **Miteq** means "eider." Rasmussen knew Qaavigarsuaq had become a great hunter and was eager to have him join the FTE, but Qaavigarsuaq initially refused because he had fallen in love with the catechist **Enok Kristiansen's** young daughter, **Bebianne Kristiansen**, and feared she would marry before he returned. However, Qaavigarsuaq's parents had already given Rasmussen their consent, and Qaavigarsuaq had to accept. At 22, he became the youngest male expedition member. After he returned to Avanersuaq, he married Bebianne Kristiansen on November 29, 1925, in Ummannaq. Qaavigarsuaq later took her surname, becoming Qaavigarsuaq Miteq Ijaja Kristiansen. Qaavigarsuaq and Bebianne had eight children. Qaavigarsuaq passed away in Qaanaaq in August 1978, the year after he lost his wife. Both are buried in Ummannaq.

Jakob Olsen (Jâkúnguak) was born 1890 in Sisimiut. His father was a chief catechist, and his brother was Rasmussen's friend **Gustav Olsen**, the missionary priest in Avanersuaq. Before the expedition left Kalaallit Nunaat for Inuit Nunangat, Olsen was approached to join it. He was given barely a day to make his decision and accepted. Like the rest of the scientific crew, Olsen kept a diary, writing accounts of songs, customs, archaeology, and material culture. Olsen was an excellent hunter and skilled at handling dogsleds. As a catechist, he taught in Kalaallisut (Greenlandic) when among the Inuit in Danskeøen. Olsen traveled with **Birket-Smith** collecting ethnographic objects during the first period of the expedition; later he traveled with **Mathiasen** for archaeological investigations at Naujan, Repulse Bay, and Southampton Island. He also recorded Inuit customs and transcribed data collected by other expedition members. After returning home, he traveled back and forth between Kalaallit Nunaat and Denmark helping Rasmussen organize and interpret the collected folklore material. In 1925 Olsen took a position at the South Greenland County Council in Nuuk as an interpreter and secretary. He died from scarlet fever on July 10, 1936, in Nuuk, at age 45.

Navarana Mequpaluk, also known by her nickname **Mequ**, was the daughter of **Kassaaluk** and **Angulluk** and was born around 1898. Her father and her one-year-old brother died from famine when she was only about 3 years old. Her mother's second husband was **Ulloriaq**, who gave Navarana three brothers and two sisters. Navarana met Peter Freuchen in 1911 and became his wife. In 1916 Navarana and Freuchen had a son **Merkussâk** and in 1918 a daughter named **Pipaluk**. When Navarana was pregnant with her daughter Pipaluk, she suffered from pneumonia.

The illness lingered, and three years later she died in Upernivik Kujalleq on August 2, 1921, just a month before the FTE began. Freuchen wanted her to be buried in the churchyard, but since she was not baptized, the priest would not approve, so Freuchen buried his beloved wife himself.

Aajako was born around 1892. He was the brother of Arnarulunnguaq and participated in Rasmussen's Second Thule Expedition (1916–1918) in which geologists **Lauge Koch** and **Hendrik Olsen** from Appat/Ritenbænk, Nasaatsorluarsuk, and Inukitsupaluk (Harrigan) also participated. Although Aajako did not participate in the First Thule Expedition, he traveled with Rasmussen and Freuchen when they returned to Denmark in 1913 to present their expedition results. Aajako became a travel companion and a close friend of both Rasmussen and Freuchen, and it came as no surprise when Aajako agreed to join the expedition. Unfortunately, he took his own life just before it began, leaving behind his wife Avoortungiaq and siblings **Inukitsoq**, **Eqilak**, and **Arnarulunnguaq**.

Their Achievements, Findings, Perspectives, and Voices

Rasmussen knew the Inughuit were great hunters and travelers who could provide him with complete independence while traveling in Inuit Nunangat (the Canadian Arctic)—that is, without having to depend on local Indigenous groups for food or support. The Inughuit provided that independence. The expedition team was divided into groups that traveled to different regions by sled and boat to collect scientific data. Explorations to the south, west, and north were conducted to make contact with as many Inuit groups as possible. Although their names are not included in the published maps, where only the scientific team's names are recorded, the Inughuit navigated the trips. In late 1921 Aaqqioq and Qaavigarsuaq travelled with Rasmussen on reconnaissance and hunting; Aaqqioq travelled with Freuchen, Mathiassen and Birket-Smith; Aaqqioq, Nsaatsorluarsuk, Qaavigarsuaq, and Olsen travelled with Rasmussen and Mathiassen on map reconnaissance; in 1922 for the longer journeys, Aaqqioq and Arnannnguaq travelled with Peter Freuchen on reconnaissance; and Arnarulunnguaq and Qaavigarsuaq travelled with Rasmussen and Bangsted.

When that part of the expedition ended in the fall of 1923, Mathiassen, Birket-Smith, and Olsen returned to Denmark via New York. Freuchen and most of the Inughuit participants traveled northeast by dogsled during the winter of 1924, arriving in Kalaallit Nunaat by boat from Mittimattalik (Pond Inlet) in fall 1924. And for the final part of the expedition, Rasmussen, Qaavigarsuaq, and Arnarulunnguaq left Ullersuaq/



Inughuit participants (left to right): Arkioq, Arnánguaq, Arnarulunnguaq, Akátak, Nasaitsordluarsuk, and Kaivigarssuak Mitek, all decorated with their FTE silver medals. Little Navarana stands in front of her parents. (Royal Danish Library, by Peter Freuchen, Courtesy of Navarana Freuchen)

Danskeøen on March 11, 1923, and traveled west through Inuit Nunangat and Alaska to Siberia, not returning home until late fall 1924.

Other Inuit from other regions of Inuit Nunangat and Alaska assisted the expedition in various ways even though they were largely unrecognized in the FTE reports. Among these are **Patdloq**, **Takornaq**, **Qatalik**, **Taqaugaq**, **Paniluk**, **Akuano**, **Autdlanâq**, **Inuujaq**, **Taparte**, **Aqaút**, **Angutimmarik**, **Nivietsianaaq**, **Sanaq**, **Makik**, **Noqatdlaq**, **Maneq**, **Nanoraq**, **Atakutaluk**, **Kukikuluk**, **Pilakavsik**, **Saamik**, **Ilupaalik** and his family, **Aua** and his family, **Utuliaq**, **Uming**, **Akumalik**, **Anarqaaq**, **Usugtaq**, and many others. Inuit who either travelled with the expedition, functioned as informants, shared knowledge, produced drawings, and collected data, transported mail, and performed other tasks. All contributed to the expedition's success and deserve recognition. Their contributions, perspectives, and voices would provide valuable insight to how this expedition impacted local communities across Inuit Nunanga, and I hope will receive more attention in the future. Fortunately, times are changing and proper recognition of Inuit contributions in the Arctic context are beginning to increase. Both Western and Indigenous scholars are acknowledging the need to better understand the experiences of those who have been marginalized in expedition narratives, making their stories better known to the public and the history of Arctic science.

Inughuit and Inuit FTE Contributions

As previously mentioned, there are very few documented details about the Inughuit participants. It

was mostly Qaavigarsuaq and Arnarulunguaq who received belated attention in scholarly and popular literature. This was largely because they accompanied Rasmussen from Hudson Bay to Alaska and Siberia between 1923 and 1924. Every now and then, written sources mentioned the rest of the Inughuit, mostly collectively and usually mentioned last, while the scholars, including Olsen, are listed as primary participants or expedition members. Proper descriptions of their contributions are lacking.

Throughout the journey, Inughuit participants gathered and discussed field data together with the scientific crew, Inuit cultural expertise provided essential knowledge, and both contributed to the recovery of artifacts leading to cultural understandings. Inughuit were usually sent ahead to introduce the expedition and often risked possible hostile encounters. They were also sent ahead to scout potentially dangerous landscapes and sea ice.

One might ask why it is so important to acknowledge Indigenous people's achievements from a time of colonial encounters and bygone rules or standards. To some extent, I believe history has been skewed in order to perpetuate colonial patterns and continue treating Inuit as objects, ignoring Inuit agency. One may argue that calls for a changing perspective should become part of a reconciliation process with past colonial powers, to right some wrongs. Inuit heritage perspectives have long been ignored in popular narratives and removed from their rightful place; the lack of recognition of Inuit achievements not only continues the colonial way of historicizing the Inuit past; it also erases their true contributions and perspectives. It is necessary to bring these formerly marginalized voices to the center, to engage Inuit as full partners and acknowledge their contributions, as well as their right to narrate their own pasts and culture. By doing so, it may be possible to produce more holistic narratives of the past. As Qaavigarsuaq's daughter Regine told me:

When you think about how much the Fifth Thule Expedition has contributed to science, we find it very strange that our parents and other Inughuit have never been visibly honored. The Inughuit were awarded the silver merit medal, but we do not even have a memorial of them, and one can wonder why that is so. It is also strange that Rasmussen did not get them recognized as being expedition members on an equal footing with the Danish members. Without Inughuit, the Fifth Thule Expedition would not have come to realization, so one can wonder where they are in our history.

Qujanaq.

WHEN DID THE FTE ACTUALLY START: NEW CLUES FROM AN OLD PHOTO?

By Mari Kleist and Igor Krupnik

In June 2021, while looking for a cover image for the FTE special issue of the *Alaska Journal of Anthropology* (See 'Notes from the Director,' *this issue*), we came across a photo of the FTE team taking a break on a sled journey in the collection of the Danish Arctic Institute (Photo ID - p48934, resource ID 200824). The photo caption in the online database (in Danish) under the overall title "5 Thule Ekspedition (1921-1924)" provided the date when the photo was taken (August 6, 1921), the names of people featured ("1. Birket-Smidt; 2 Th Mathiasen; 3 H. Bangsted; 4 Qavigarsuaq?; 5 Jakob Olsen; 6 Knud Rasm.; 7 Arnarulunguaq"), but neither the name of the photographer ("unknown") nor the place where photograph was taken. Person no.5 was clearly not **Jakob Olsen** and person no.7 was not Arnarulunguaq. If the photograph was taken in Canada, during the expedition fieldwork then either **Peter Freuchen** or Jakob Olsen could be the photographer/s. It was obvious that the date and the caption did not match; so, we asked Mari Kleist to help identify the Inughuit participants as a clue to photo's origin.

Mari's immediate suggestion was that the photo was indeed taken in August 1921 in Avangersuaq (Thule, Northwest Greenland) and that it might have documented some earlier encounter rather than the FTE main fieldwork in Canada. According to the FTE timeline, in August 1921 Rasmussen and his Danish crew (**Therkel Mathiasen, Kaj Birket Smith, and Helge Bangstead**) went on a short visit to Avangersuaq



The 'mystery' photo described above, was taken in August 1921 in Avangersuaq (Thule) during a 'dry run' for the full FTE.

(Thule District) to meet with their future Inughuit partners and to pick up sled dogs and field gear for fieldwork in Canada. Mathiassen's "Report on the Expedition" (*FTE Reports* 1945, Vol. 1(1), pp. 15–17) described their arduous journey to Avanersuaq in July–August 1921 onboard the *Bele* and later the *Søkongen*, after the *Bele*'s wreck off Uumanaq on July 14, and the loss of the FTE supplies. On August 2, 1921, the crew arrived at Thule. As Mathiassen reported:

During the following days the ship was discharged... and we made a short sledge journey up on to the ice cap to take a film, Rimmen the photographer having accompanied us to Thule. Here the Expedition's Polar Eskimos joined us: Iggianguaq (about 35 years old) and his wife Arnarulunguaq, Arqioq and his wife Arnanguaq, "The Bo'sun" (Nasaitordluarssuk) and his wife Aqatsaq, and the young unmarried man Qavigarsuaq. ... On the 7th of August the Søkongen left Thule on a southerly course, now carrying the Polar Eskimos (Inughuit), their dogs and other equipment" (Mathiassen 1945:17).

That citation provided the date, the Inughuit to be checked on the photo, and the name of the photographer (**Hellwig F. Rimmen**, 1884–1960). Soon, Mari was able to identify yet another picture evidently taken on the same trip in the Danish Royal Library ("Fifth Thule Expedition," [ke011479.tif](#)) but only with the names of its Danish members listed. This and another photo in the Arctic Institute collection feature the same group of people, same pieces of field gear (a big kettle used to boil water for coffee (?), a primus with attached container, a large tin can, etc..) and the same small tent, as in our selected photographs, including a dog lying in snow. All people were dressed in the same heavy fur clothing that seemed a bit 'out of season' in early August and in relatively warm weather (by Avanersuaq standard), even if traveling over the inland icesheet.

With this, we were able to put all missing pieces together. The official starting date for the FTE, according to its chronology was June 18, 1921, when Danish crew members, Rasmussen, Mathiassen, and Birket-Smith, sailed to Greenland from Copenhagen, onboard the *Belle*. The ship was also carrying people who planned to participate in the 200th anniversary event for **Hans Egede**'s landing in Greenland in 1721. Among them was a small film crew of **Eduard Schnedler-Sørensen**, film director; **Carl Hillebrandt**, actor; and **Hellwig Rimmen**, photographer and cameraman. That film crew produced the first-ever film in Greenland,

a 90-minute documentary titled "*Den store Grønlandsfilm*" (*The Great Greenland Movie*), 1922, now in the collection of the Danish Film Institute (DFI) in Copenhagen. The contemporary caption in the DFI catalog introduces the film as "...pictures of daily life in Greenland, of seal hunting and shark fishing as well as hunting of walruses and polar bears. In addition, there are recordings of the start of the 5th Thule expedition, which is led by Knud Rasmussen." A contemporary film poster attached to the online record displays several still photos, including three from the August 6, trip to the ice cap with the FTE participants, and a new one with a cameraman and the tent. Hence, some additional photos from that trip might have been preserved in the Danish archives. A short caption printed in the 8-page movie program from 1922 says that the FTE members were having a "farewell-kaffemik (invitation for coffee)" on the ice cap.

Several FTE participants were not on that trip, like Peter Freuchen, who was left in Upernavik, when his Inughuit wife **Navarana** got ill with influenza on the way to Avanersuaq (she, unfortunately, passed away in Upernavik on July 31, 1921). Another key member, **Jakob Olsen** was then at his residence in Ujarasussuk in Disko Bay; he did not even know about the FTE until August 14, 1921 (Kleist, *this issue*). Three other FTE Inughuit members who reportedly joined the sledge trip on August 6 but were not featured in this photo included **Iggianguak** (Iggiannguaq), **Arnanguak** (Arnannguaq), and **Akátak** (Aqattaq). **Iggianguak** (Iggiannguaq), **Arnarulunnguaq**'s husband, the most senior Inughuit man on the team, died of influenza on September 6, 1921, in Nuuk, before the expedition departed for Canada.

A short trip on August 6, was then a sort of a 'warming up' event for the FTE members to see each other and to develop some personal chemistry. The informal and non-hierarchical nature of the team and Rasmussen's personal style of leadership are clearly obvious in the picture. These relations mostly continued through the FTE later journeys between fall 1921 and fall 1924. So, when thinking about the *actual* starting date for the FTE, we may put yet another date, August 6, 1921, next to June 18, 1921 (the Danish team departure from Copenhagen), September 7, 1921 (the full crew departure from Nuuk/Godthaab on board the *Søkongen*), and September 18, 1921 (the expedition landing in Canada on the Danish Island). It was on August 6th, when the Danish and the Inughuit members first met on a short training trip and tested their skills, gear, and character, a prelude to their heroic three-year journey "across Arctic America."

ASC ANCHORAGE, ALASKA OFFICE

MAJOR ENDOWMENT GIFT FROM JO AND PETER MICHALSKI

By Aron L. Crowell

NMNH Director **Kirk Johnson** and NMNH Chief Development Officer **Sandra Luvinguth** announced in November that **Jo and Peter Michalski** of Anchorage—longtime friends, advocates, and financial supporters of the Arctic Studies Center’s Alaska program—have arranged a \$250,000 bequest to support the future of ASC research and education. Thank you, Jo and Peter! On top of this great news, a \$10,000 match to the Michalski’s generous bequest was made immediately available through the Smithsonian’s Legacy Challenge program, in celebration of the institution’s 175th anniversary.

Jo Michalski is a successful entrepreneur and prominent leader in civic philanthropy who has served on the Smithsonian National Board since 2019 and as past chair of the Smithsonian Council for Arctic Studies, the ASC’s circle of Alaskan private and corporate donors. Jo recently chaired a hugely successful \$100 endowment campaign for the Alaska Community Foundation, and she has served on and chaired numerous non-profit boards including the YWCA, Alaska Public Media, and University of Alaska Foundation. Over a 32-year career in business Jo opened and ran seven successful retail stores and was inducted into the Alaska Business Hall of Fame and the Alaska Women’s Hall of Fame. With a background that includes an M.A. in Secondary School Administration, teaching in Minneapolis public schools, and positions with the Alaska Department of Education, Jo Michalski has always been an educator at heart, and she especially values the ASC’s work with Alaska Native teachers, artists, and young people around the state.



Jo and Peter Michalski at a reception showing artwork by Sonya Kelliher Combs

Coming from a distinguished career in the law, Peter Michalski has also long been dedicated to community causes. He is the past Chair of the Board of the Alaska Community Foundation, served on the Anchorage Museum Board of Directors, and is presently on the Board of the Anchorage Museum Foundation. Peter was a Superior Court judge for the Third Judicial District in Anchorage (1985–2012) and during his earlier career worked for the District Attorney’s Office in Fairbanks and the Department of Law in Juneau. His Juris Doctor is from the University of Minnesota Law School.

About their legacy gift, Jo said, “Hopefully it will encourage others to consider a gift to the Arctic Studies Center to recognize and continue their important work.” The Michalskis have always led by generous example, and we are proud and gratified to have received their support through the years, and now a foundation for the future.

GENEROUS SUPPORT FROM LAURA BROUSE-LONG

By Aron L. Crowell

Laura Brouse-Long, Director of the James Smithson Society and Smithsonian Giving Circles, this year set in place a major and most welcome personal bequest to the Arctic Studies Center, generously complementing the crucial stewardship that she provided in her professional capacity to the ASC’s giving circle in Alaska, the Smithsonian Council for Arctic Studies. Laura, we are deeply grateful for this and for your years of friendship and support. The bequest will add to the Arctic Studies Center’s growing endowment, and while that addition is far in the future, Laura said she was inspired by the benefit of a 10% matching award conveyed immediately from the Smithsonian Legacy Challenge program when donors include the Smithsonian in their estate plans. That funding has already contributed to ASC



Laura Brouse-Long, Director of the James Smithson Society and Smithsonian Giving Circles

projects including “Batuk’enyashi: Natural Dyes from Dena’ina Lands” in partnership with the Alaska Native Heritage Center (see article by Dawn Biddison in this *ASC Newsletter*).

Laura’s work for the Smithsonian has been wide-ranging and highly impactful. She leads and provides strategic direction to Giving Circles across the country including the James Smithson Society, the oldest annual giving circle at the institution. She designs and leads numerous donor engagement events and oversees the Annual Smithsonian Weekend, a cultivation and recognition activity for over 500 donors hosted by the leaders of all 21 Smithsonian museums. During her career, Laura has led and advised membership and giving programs at other national museums, including the National Museum of Women in the Arts, the United States Holocaust Memorial Museum, the Japanese American National Museum, and the National Museum of the American Indian. She began her professional life in direct marketing and fundraising for National Public Radio and the Public Broadcasting Service. It’s an impressive list of public service, and we salute Laura’s many and enduring contributions.

As this brief bio suggests, Laura is a dedicated supporter of the arts and humanities. In speaking about her gift to the Arctic Studies Center she says: “I was so inspired by my visits to Anchorage and hearing each year about the Center’s mission; the Smithsonian’s 150 year history in the area, its deep collaboration with Native communities, Dr. Crowell’s extensive anthropological studies and field research, and ongoing Alaska Native language reclamation. The Smithsonian’s commitment in Alaska is exemplified by partnership between the National Museum of Natural History and National Museum of the American Indian, which loan their collections to foster dialogue, education, and the preservation of our shared histories. The Arctic Studies Center is a beacon of knowledge and commitment to community that warrants this kind of continued investment by all of us who are touched by its mission.”

WHY GLACIAL FIORDS ARE GREAT PLACES TO LIVE, PART 2: THE CULTURAL ECOLOGY OF COOK INLET, ALASKA

By Aron L. Crowell

This article, adapted from a chapter in *Imagining Anchorage: The Making of America’s Northernmost Metropolis* (Crowell 2018), revisits the topic of glacial influences on the ecology of Alaskan fiords, and the question of why these environments are such attractive places for Indigenous settlement.

Having previously considered Yakutat Bay (Crowell 2020, *ASC Newsletter* 27), the focus here is on Cook Inlet, the largest fiord in Alaska. Almost 300 km long, the inlet was carved by massive glaciers that poured out of the Chugach Range during the Pleistocene, then began to retreat about 15,000 years ago. European navigators including James Cook and George Vancouver were impressed by the majesty of the mountain-rimmed fiord and by its huge tidal flux, strong currents, and dangerous shoals, but gained little understanding of its cultural history and ecology.

Starting as early as 10,000 years ago small numbers of people of the Paleoarctic, Ocean Bay, Arctic Small Tool, Norton, and Northern Archaic cultural traditions moved into Cook Inlet from nearby regions, drawn by the abundance of fish and game in its ocean waters, rivers, and surrounding boreal forests. Around 3,000 years ago Kachemak culture ancestors of the Sugpiat (Alutiit) settled in Kachemak Bay, near the mouth of Cook Inlet, where today the Sugpiaq communities of Nanwalek and Port Graham are located, and along the Kenai and Kasilof rivers (De Laguna 1975; Workman 1996). The Sugpiat are the southernmost Alaskan Inuit, with a traditional territory that extends from the Alaska Peninsula to the Kodiak archipelago, the Kenai Peninsula, and Prince William Sound. Dena’ina people belonging to the Dene/Athabaskan cultural family expanded their territory to the shores of upper Cook Inlet about 1,000 years ago from the adjacent interior, and today live in coastal towns that include Tyonek, Knik, Eklutna, and Kenai (Jones et al. 2013; Reger 1998; Workman 1998).

During nearly a millennium of shared tenancy in Cook Inlet the Dena’ina and Sugpiat have interacted with each other and with neighboring Indigenous cultures. Warfare, trade, and political alliances figure prominently in the oral traditions of both peoples, and routes used by raiding and trading parties extended north into the interior and south over mountain passes to Prince William Sound and the outer Kenai coast. Both groups occupied large permanent villages and developed complex, lineage-based societies with ranked kinship systems, similar to other coastal Indigenous cultures from the eastern Aleutian Islands to the Northwest Coast of British Columbia.

From the standpoint of cultural ecology, the Dena’ina and Sugpiat occupy contrasting although partially overlapping niches in the Cook Inlet environment. For the Sugpiat, maritime resources of the lower inlet have always predominated in the food quest, while for the Dena’ina terrestrial and riverine food sources of the upper inlet, especially salmon, are the most important. Evidence of these traditional subsistence

patterns is provided by faunal remains preserved at archaeological sites. For the Kachemak and Sugpiat cultures these include the Yukon Island and Port Graham Cannery sites in Kachemak Bay (De Laguna 1975; Workman 1998) while for the Dena'ina there are riverine sites on the Kenai Peninsula (Reger 1998, 2013) and the Tiq'atl'ena Bena site at the head of Cook Inlet (Dixon 2003).

The traditional subsistence technologies of the two groups also reflect these specializations. The Dena'ina used bows and arrows and a wide variety of snaring and trapping methods for taking land animals, including caribou drive systems; they harvested salmon and other river fish using weirs, traps, fish spears, and dip nets; they traveled overland using snowshoes in winter and birch bark canoes in summer; and they made extensive use of woodland and tundra plants for food and medicine. Reflecting cultural interchange with the Sugpiat, they used kayaks to hunt seals and sea otters and harpooned beluga whales from tree platforms in the tidal mud flats, although marine mammal hunting was of secondary importance in the overall subsistence pattern (Jones et al. 2013). The Sugpiat were far more oriented to the sea, as indicated by the predominance of sea mammal, sea bird, and pelagic fish bones in archaeological middens (De Laguna 1975; Workman 1998). They utilized a diverse inventory of ocean hunting and fishing tools including kayaks, umiaks, inflated seal skin drag floats, darts, throwing boards, various types of harpoons, sea otter arrows, poison-coated projectiles for killing large whales, and rigs for cod and halibut fishing.

This pattern of complementary co-occupation and resource use by the Dena'ina and Sugpiat was structured in large part by the marine biogeography of Cook Inlet. The inlet is an extension of the continental shelf and therefore relatively shallow (generally less than 50 m deep) over its entire extent. It is divided into two oceanographic zones—estuarine in the upper inlet and marine in the lower—separated by a mid-bay transition zone (Fig. 1). Throughout the history

of human occupation, the contrasting resources of the estuarine and marine areas have influenced settlement patterns and subsistence practices (Reger 1998).

The upper bay receives large inputs of fresh water from the Knik, Matanuska, Susitna, Kenai, Kasilof, and other rivers, and as a result is warmer and less saline than the Gulf of Alaska, a fact observed by Cook as he travelled up the fiord in 1778 and which he took as evidence that “Cook’s River” would not prove to be an open ocean strait or the long-sought Northwest Passage. Silt flowing into the inlet from Matanuska, Knik, and other glaciers builds broad tidal mud flats and mixes

with the waters of the estuary, resulting in high turbidity, low light penetration, and minimal growth of phytoplankton. As a result of this low level of productivity at the base of the food web, resident populations of marine invertebrates, fish, seabirds, and mammals are quite limited. However, large numbers of salmon migrate from their feeding grounds in the open ocean to spawn in upper inlet

rivers and lakes during May to September, pursued by harbor seals and beluga whales that move up from the lower inlet to feed on these fish.

In contrast, the marine environment of lower Cook Inlet is characterized by clear, cold, saline waters enriched by sediment plumes from glacier watersheds in Kachemak Bay (Grewingk, Portlock, and Dixon glaciers) and by the upwelling of bottom water and minerals from the ocean floor, generated by the clash of strong outgoing tides with westward-flowing waters of the Alaska Coastal Current. The upwelling zone at the mouth of Cook Inlet extends out into the Gulf of Alaska, encompassing the Kodiak archipelago, northeastern Alaska Peninsula, and southwestern outer coast of the Kenai Peninsula. Favorable light and nutrient conditions in this area support flourishing summer blooms of phytoplankton and zooplankton. A counter-clockwise flow of biologically enriched water curls along the east side of Cook Inlet into outer Kachemak Bay and up to the marine-estuary transition line before turning west and circulating back toward

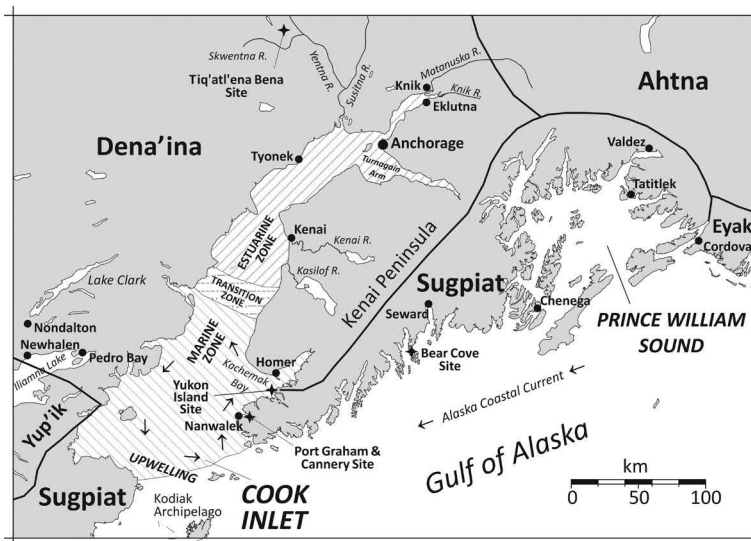


Figure 1. Cook Inlet marine zones, Dena'ina and Sugpiat communities, and selected archaeological sites

the bay mouth. The highly productive food web of the lower Cook Inlet upwelling zone includes large populations of fish, seabirds, and marine mammals (Drew and Piatt 2002; Spies 2007).

The contrast in productivity between Cook Inlet’s inner and outer fiord environments is a common biogeographical pattern around the Gulf of Alaska, where the abundance and variety of marine food resources are correlated with the density of human settlement, both tending to be greater in outer fiords and adjacent coastal regions. Archaeological sites cluster around the outer Cook Inlet/Gulf of Alaska upwelling zone (Fig. 2) and people living at these settlements had access to abundant marine resources as indicated by “richness” scores representing the overlap of harvesting catchment areas (Crowell et al. 2012). It is not surprising that ethnohistoric census data indicate that at the time of European contact the Cook Inlet upwelling zone supported the largest Indigenous populations in Alaska, including an estimated 6,500 residents of the Kodiak archipelago and 1500 more in lower Cook Inlet and along the Alaska and Kenai peninsulas.

The reverse of these patterns is indicated for the relatively depauperate estuarine environment of upper Cook Inlet. Here coastal archaeological sites are fewer in number and farther apart except for clusters at major salmon fisheries including the Kenai River area and the head of Knik Arm. Virtually all coastal sites in the upper inlet have low diversity scores, since most are river mouth settlements with access to only a few species of fish (primarily salmon) and sea mammals.

Most of the upper inlet sites depicted in Figure 2 are Dena’ina in cultural affiliation, although some sites of earlier periods are represented including Kachemak fishing camps along the lower Kenai and Kasilof rivers. The reverse is true for the lower inlet where most of the

sites are Kachemak or Sugpiaq and are concentrated in the rich marine environment of Kachemak Bay. In addition, more than 30 Sugpiaq sites are known along the outer Kenai coast within the upwelling zone (Crowell and Mann 1996).

Climatic changes in temperatures and circulation since the end of the Pleistocene have altered the marine environment of Cook Inlet and surrounding regions. Some of the best evidence comes from isotopic studies of lakes where red (sockeye) salmon spawn. Nitrogen-15 (N15) is enriched relative to N14 in the

bodies of salmon as the result of ocean feeding, and when they spawn and die this isotope is deposited in lake bottom sediments. Coring of lakes in the Kodiak archipelago and around Cook Inlet and Bristol Bay yielded a 2,200 year radiocarbon-dated sequence showing fluctuations in N15 levels that serve as a proxy measure of salmon abundance (Finney et al. 2002). Salmon population levels were low from 100 BCE to 800 CE during the Neoglacial period, then trended upward over the next 400 years during the Medieval Warm Period. Salmon remained relatively

high for the next nine centuries except for a dip around 1800 CE at the peak of the Little Ice Age, when ocean waters significantly cooled.

These trends in salmon population signal wholesale shifts in the marine ecosystem and coincide with archaeologically observed cultural transitions. Neoglacial cooling around 100 BCE coincided with the shift from early to late Kachemak culture on Kodiak Island. In Kachemak Bay, faunal remains from late Kachemak sites include few salmon bones but show increased numbers of pelagic fish and sea mammals, which tend to be more abundant during cooler climate phases. On Kodiak Island the rise in red salmon from 800 CE to 1200 CE coincided with a

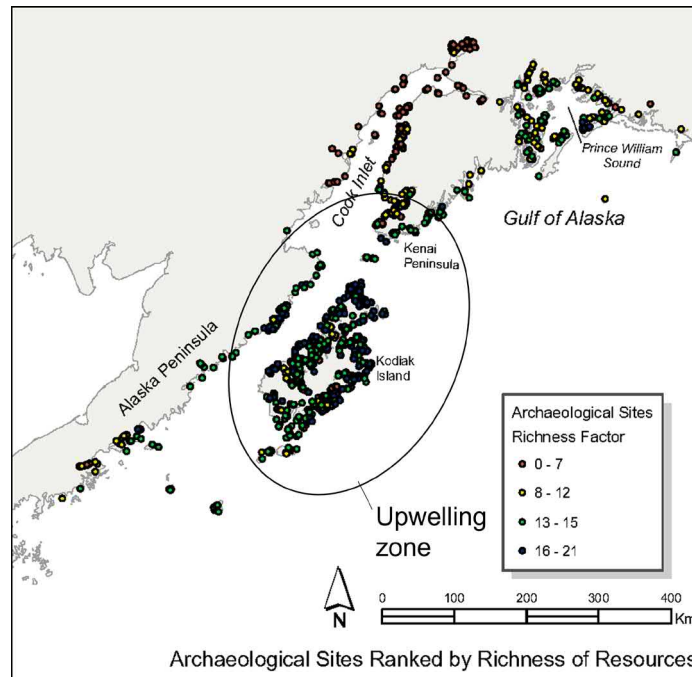


Figure 2. Coastal archaeological sites in the central Gulf of Alaska, color coded by richness score, which measures the number species harvesting locales within a 10 km radius by boat or 1 km on foot. Highest richness values are in the Cook Inlet upwelling zone, where site density (clustering) is also highest.

transition from late Kachemak to Sugpiaq culture (the Koniag phase), accompanied by an increase in human population and the establishment of large salmon fishing villages along the Karluk, Ayakulik, and other rivers. In Cook Inlet, the rise in salmon numbers coincided with the end of the Kachemak occupation and the migration of Dena'ina people to the Cook Inlet area, where they established fishing villages with multiroom houses and cache pits for storing the salmon harvest. The climate had warmed, the marine ecosystem had changed, and Indigenous peoples modified their settlement patterns and subsistence practices in response.

As we contemplate the impacts of Arctic warming on the present and future environment of Alaska and its oceans, it is important to recognize that climatic and ecosystem change have always influenced Indigenous lifeways. Global average air temperatures are now higher than at any time in at least the last 1,400 years including the Medieval Warm Period, and a wide range of effects has been observed in Alaska and the circumpolar Arctic. These include ocean acidification, rising ocean temperatures, declining sea ice, significant declines of sea mammals such as harbor seals, sea lions, and sea otters, and changes in the abundance of salmon and other fish that are important to both subsistence and commercial fisheries. While the effects of climate warming on human societies is far different now than in the past, we can be sure that they will be both significant and long-lasting, challenging our ability to adapt as effectively as the Sugpiaq and Dena'ina people of Cook Inlet.

Audrey Larson has accepted an Arctic Studies Center Graduate Fellowship for 2022 and will develop the topics discussed in this article for her Masters in Professional Studies (MPS) in Underwater Archaeology at the University of Miami in Coral Gables FL. Audrey, whose previous experience has been around (and under) more southern waters, became intrigued by Indigenous adaptations to glacially influenced environments in the Arctic. She plans to incorporate archaeological data and recent marine ecological studies by Mayumi Arimitsu, Sarah Schoen, and others into a GIS model of settlement and resource use in Cook Inlet.

Reference

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THE CIRI FOUNDATION'S ALASKA NATIVE MUSEUM FELLOWSHIP PROGRAM: ANNIE WENSTRUP

By Dawn Biddison

In the fall of 2021, **Dawn Biddison** worked with **Annie Wenstrup** (Dena'ina Athabascan) who resides in Fairbanks, on a virtual Museum Sovereignty Fellowship, a program funded by [The CIRI Foundation](#). Annie is as an Advisory Board member of the Kachemak Bay Writers' Conference and a creative writing student in an MFA low-residency program at the University of Southern Maine. The fellowship was organized as an opportunity for Annie to learn about developing an online webinar series—specifically *Conversations* (see “Conversations Webinar Series” in this issue)—on Indigenous heritage and issues in collaboration with an Indigenous organization and an Indigenous advisors group, including project development, research, management and documentation.

The *Conversations* project was selected as an example of how museum staff can extend collaborations with Indigenous peoples beyond the physical space of a museum and can provide wider access to public programs through virtual events that reduce barriers for people living in remote locations. The fellowship included weekly meetings, issues-based research related to the webinar topics, attending webinar planning meetings, and attending and discussing the webinars. Annie also attended the NAASA session “Creating and Engaging Virtually: A Conversation with Alaska Native Artists and Alaskan Museum Anthropologists” organized by Dawn, which was later discussed and analyzed.

Based on Annie's experience and her academic work, the fellowship was extended to specifically benefit her MFA studies. In this work, Annie focused on analyzing and writing poetry within a museum-like meta structure, including self-portraiture elements and how staff and audiences talk about images. To accommodate these interests, meetings included conversations about



Annie Wenstrup, TCF fellowship recipient with the Arctic Studies Center Alaska, fall 2021. Photo by Annie Wenstrup

and analysis of museums at various levels and ways of practice: structures, interpretation, audiences, museum accessibility, Indigenous presence and collaboration, colonialism and post-colonialism, and Indigenous sovereignty. Given her interest in the virtual presence of museums, the content and goals behind the [ASC- AK Smithsonian Learning Lab site](#) were also discussed and analyzed, including decolonizing museum collections and museum work. Annie's reflections about her fellowship can be read her entry for the ["Share Your Story" page](#) on The CIRI Foundation website.

CONVERSATIONS WEBINAR SERIES: A COLLABORATION WITH THE INUIT ART FOUNDATION

By Dawn Biddison

Conversations is a webinar series that brings viewers into discussions by Indigenous peoples, which provide information and insights on important subjects and issues, along with ideas and examples to help inform people about how to act with regard to Indigenous peoples and their heritage. The program was made possible through generous support of the Inuit Art Foundation (IAF) and supporters of the Arctic Studies Center in Alaska.

The Inuit advisors who developed the subjects and selected speakers were **Kacey Purruq Qunmigu Hopson** (Indigenous Knowledge Advocate, First Alaskans Institute), **Sonya Kelliher-Combs** (Artist), **Taqralik Partridge** (Director, Nordic Lab at SAW) and **Krista Ulujuk Zawadski** (PhD Candidate, Carleton University). IAF staff **Heather Campbell** (Inuk: Nunatsiavut, NL) and **Alyson Hardwick** (Inuk: Happy Valley-Goose Bay, NL) hosted the webinars. **Dawn Biddison** was the project manager and online content creator for the series, and **Katie Barca** provided technical support for the Zoom events.

The eight webinars subjects are (in order of the events):

- ["Queer Inuit Art"](#) with moderator **Alice Qannik Glenn** (Inupiaq) and speakers **Jenny Irene Miller** (Inupiaq) and **Ossie Michelin** (Inuk: North West River, NL)
- ["Inuit Identities and Vitalization"](#) with moderator **Heather Igloliorte** (Inuk, Nunatsiavut, NL) and speakers **Christine Tootoo** (Inuk: Kangiqliniq, NU) and **Allison Akootchook Warden** (Inupiaq)
- ["Music within Inuit Cultures and Languages"](#) with moderator **Tiffany Ayalik** (Inuk: Kugluktuk, NU) and speakers **James Dommek Jr.** (Inupiaq), **Byron Nicholai** (Yup'ik) and **Julia Ogina** (Inuk: Cambridge Bay, NU)

- ["Learning Across Generations and Back"](#) with moderator **Nadia Jackinsky-Sethi** (Sugpiaq) and speakers **Miqqusaaq Bernadette Dean** (Inuk: Kivalliq, NU), **Keneggnarkayaaggaq Emily Edenshaw** (Yup'ik/Inupiaq), **Kunaq Marjorie Tahbone** (Inupiaq) and **Krista Ulujuk Zawadski** (Inuk: Rankin Inlet, NU)
- ["Activating Inuit Art Sovereignty"](#) with moderator **Emily Laurent Henderson** (Greenlandic) and speakers **Theresie Tungilik** (Inuk: Nauyaat, NU) and **Dalee Sambo Dorough** (Inupiaq/Kiowa)
- ["Challenges to Inuit Art Sovereignty"](#) with moderator **Tanya Lukin Linklater** (Sugpiaq) and speakers **Taqralik Partridge** (Inuk: Kuujjuaq, NU) and **Sven Haakanson** (Sugpiaq)

You can find all six webinars in the *Conversations* section of the Learning Lab site for [Smithsonian Arctic Studies Center in Alaska](#). In addition to the edited videos, the collections provide information about each speaker. Plans are underway to continue the series in the fall of 2022.

INTERGENERATIONAL CREATIVITY AND LEARNING THROUGH INDIGENOUS COMIC ART: CHICKALOONIES

By Dawn Biddison

The Indigenous comic book *Chickaloonies: First Frost* is a story about two friends from Chickaloon Village who go on a quest to become great storytellers, relying on the teachings of their grandmother throughout the adventures and trials along their journey. It is an all-ages, Alaska Native adventure about legends, language, magic and the journey of discovering one's own story in an ever-changing world. *Chickaloonies* is created by [Dimi Macheras](#) (Ahtna Athabascan) and [Casey Silver](#), the team that makes up [80% Studios](#). [Melissa Shaginoff](#) (Ahtna Athabascan, Paiute) is a cultural knowledge contributor for the project.

"The traditional *Ya Ne Dah Ah* ('Ancient Teachings' in the Ahtna language) legends were passed on to us children by Chickaloon Village Elders, and my grandmother, **Katherine Wade**. Eventually I turned some of these stories into illustrated comic books. My mother, **Patricia Wade**, helped bring them to life by incorporating the art into live *Ya Ne Dah Ah* storytelling events, which she shared in schools and gatherings throughout Alaska. Sadly these two culture-bearers have passed on. The legacy of their contributions are hard to quantify, but this book is how I hope to continue the tradition of sharing our culture in a fun new way that would make them proud." (Dimi Macheras, 2021)



Casey Silver and Dimi Macheras at a book signing for Title Wave Books in Anchorage, Alaska, 2021. Photo courtesy of 80% Studios

The Chickaloonyes team partnered with **Dawn Biddison** as project manager and co-developer to collaborate on expanding the scope of their work. With generous support by The CIRI Foundation's Education Heritage Grant program, the Recovering Voices program (NMNH), and the Alaska State Council on the Arts, they began work on making engaging educational resources. Together, the team aims to empower Indigenous youth, and all youth, through creative expression and through intergenerational learning with family and cultural heritage, made relevant to their lives through developing their own artistic vision and voice. Their work focuses on the comic art form as a way to learn about, express, and perpetuate Indigenous heritage and Indigenous ways of learning: honoring Elders and knowledge-keepers and seeking to learn from them; experiencing the impact of storytelling and traditional values; learning multi-faceted information from heritage pieces in museum collections; and creating contemporary arts inspired by historic arts.

Based on the *Chickaloonyes* characters and storyline, the project team began work in November to illustrate and write an in-depth instructional workbook on comic art and to develop a comprehensive virtual workshop. The workbook will detail how to draw characters and write stories, and it will include activities inspired and informed by Athabascan cultural heritage pieces in the Smithsonian's [Living Our Cultures](#) exhibition at the Anchorage Museum, pieces enriched with information shared by Alaska Native experts during exhibition research and co-curation with the Center's staff. The workshop is organized around a presentation with



Grandma tells a story in a page from the comic book *Chickaloonyes: First Frost*. The symbols rising as she speaks represent the Ahtna Athabascan language. Illustration © 80% Studios

Dimi's story of becoming an Indigenous comic artist, lessons from the workbook, live drawing experiences and facilitated student engagement throughout. In February, the team partnered with Chickaloon Village, Kenaitze Indian tribe (Kenai) and the Cook Inlet Tribal Council (Anchorage) to host workshops and to receive feedback for making improvements to future workshops. In March, the project resources—including information about the artists, museum resources and the comic art workbook with a video introduction from its makers—will be available online at the project Learning Lab site "[Intergenerational Creativity and Learning through Indigenous Comic Art: Chickaloonyes](#)."

VOICES FROM CEDAR DIGITAL LEARNING PROJECT

By Dawn Biddison

"I gained a lot from this project. It connected me with a community of learners who were eager for the information I had to offer. It is also wonderful to know that the information gained through this project will live on forever and can be accessed by all who have interest.

I also gained a respect for how technology can bring people together even living far apart in diverse parts of Alaska and elsewhere. I am also left with a satisfying feeling of giving something back to the artist community and staying closely connected to it.” (John Hudson, Tsimshian, lead artist)

“It was a great experience to be able to work on an Alaska Native art project and have all the necessary materials and tools provided. I gained from this experience knowledge about the traditional use of whistles by Tsimshian people as well as the other Southeast Alaska tribes. I also gained more confidence in my abilities to carve on my own because we had to move forward with the project on our own time. The excitement of making something that could be used motivated me to problem solve as I went along and then asked questions if I got stuck on the next step.” (Virtual workshop student)

The “Voices from Cedar: Digital Learning” project was developed to help Alaska Native artists learn about the Tsimshian/Tlingit/Haida whistle, an important art form that has been dormant in Southeast Alaska. Through the contributions of Tsimshian Master artist John Hudson, project manager **Dawn Biddison** produced instructional videos and additional content that was posted online and will serve as accessible resources to facilitate making this art form for future teachers and students. DVD sets of the videos were widely distributed throughout Alaska. John also taught virtual workshops where Alaska Native students learned how to make their first whistle. In addition, a webinar was held to introduce the project and its online resources to the public, as well as email announcements to an extensive mailing list and to Alaska list-serves.

“Voices from Cedar” was built with film footage shot in 2015, in which John provided cultural information about Southeast Alaska wind instruments and taught



John Hudson



Voices from Cedar resources on the Smithsonian Arctic Studies Center in Alaska website on the Smithsonian Learning Lab platform. Photo by Dawn Biddison

how to carve a whistle from start to finish, including tools, materials, techniques, testing, and refining. No such educational resources existed for this endangered art form prior to this project. Dawn edited twelve instructional videos from the footage, with reviews and approvals of final versions by John. Printed DVDs were mailed out in July to the lead artist, workshop students, workshop applicants, Southeast Alaska schools and Native organizations, statewide libraries and archives, and selected national organizations. Sending out DVDs is an important tool for reaching more of the general public and people with poor Internet service.

In order to make these resources more widely accessible, Dawn posted videos and additional content online at two Arctic Studies Center websites. The instructional videos—including an introductory webinar and troubleshooting tips (described below)—are available on the [“Smithsonian Arctic Studies Center in Alaska” YouTube channel](#) and [Smithsonian Learning Lab site](#). Also, since the Learning Lab platform allows additional types of files and materials to be grouped together, that site was expanded to twenty-seven entries, including photos and diagrams of whistles representing the types carved in the workshops videos, and short videos of John with information about historic Southeast Alaska whistles in the National Museum of Natural History that John studied in person years back.

In addition to the online resources, the project offered whistle-making workshops taught by John to Alaska Native art practitioners. Students were gifted carving materials and tools made by John, and he taught them carving skills and traditions about this art form. During a time when in-person workshops were not being held due

to COVID-19, the project workshops offered a special opportunity for students. Thirty-six people applied for the ten spots, even though it was held during the busy summer season. In order to make participation more accessible for people with jobs, one workshop was held on weekday evenings and the other on weekend afternoons. Prior to the classes, students were sent a link to the project Learning Lab site to help prepare them and to help them afterwards. All applicants for the workshops were sent the website link, and all workshop students and applicants were sent DVDs.

Along with the workshops, a virtual webinar was held to introduce the project and online resources to the general public. The event was recorded on the Zoom platform, and a video file was edited to include two views and additional resources discussed during the event. The webinar video was added to the “Voices from Cedar” website to act as an introduction to the online resources. John also made a trouble-shooting tips video, which was filmed on Zoom, edited, and posted.

This project was made possible by generous support of The CIRI Foundation, Recovering Voices (Department of Anthropology, NMNH), Alaska State Council on the Arts, Sealaska Heritage Institute, and supporters of the Arctic Studies Center in Alaska.

MEDIA

By Dawn Biddison

In 2021, the Learning Lab site [Smithsonian Arctic Studies in Alaska](#) gained ten new collections. A new section “Conversations” was added with eight entries. The goal of the Conversations video series is to bring audiences into discussions with Indigenous peoples, providing information and insights on important subjects and issues, along with ideas and examples that can help prepare people for making choices about how to act with regard to Indigenous peoples and their heritage. A new collaboration with the Inuit Art Foundation produced six of the Conversation collections with twenty-one Alaskan and Canadian Inuit speakers who participated (see “Conversations Webinar Series” in this issue).

Two additional Conversations entries were produced by **Dawn Biddison** from webinars that she organized and hosted with Alaska Native speakers. “[Conversations: Land Acknowledgement](#)” features cultural advocate, curator and artist **Melissa Shaginoff** (Athna Athabascan/Paiute). Along with the edited webinar video, there is a downloadable PDF resource “You Are On Indigenous Land,” an instructional guide discussed in the video to help readers research and write their own land acknowledgements. There are also links to online videos with examples of land acknowledgements



Screen capture of the Conversations collection on Learning Lab site “Smithsonian Arctic Studies Center in Alaska.”

Photo by Dawn Biddison

given as part of an introduction to public events. “[Cultural Appreciation vs. Cultural Appropriation: A Conversation with Alaska Native Artists](#)” features moderator Melissa Shaginoff (Ahtna Athabascan, Paiute) and speakers **Dimi Macheras** (Dena’ina Athabascan), **Vera Starbard** (Tlingit, Dena’ina Athabascan) and **Ilgavak Peter Williams** (Yup’ik). The entry includes recommended links to general information about the subject and two downloadable PDF resources: “Avoiding Cultural Appropriation” and “Think Before You Appropriate.” This project was made possible through the generous support of the Open Society University Network, Recovering Voices (Department of Anthropology, National Museum of Natural History) and supporters of the Arctic Studies Center in Alaska.

The “Voices from Cedar” collection was added to the “Community Videos” section, featuring twenty-seven resources about Southeast Alaska whistles (see “Voices from Cedar” in this issue). The “Intergenerational Creativity and Learning through Indigenous Comic Art: Chickaloonies” collection was added to the “Distance Learning section,” and its twenty-six resources include a downloadable PDF workbook on how to draw and tell stories using comic art (see “Chickaloonies” in this issue).

NOME CELEBRATES OUR STORIES ETCHED IN IVORY

By Amy Phillips-Chan

Almost ten years ago, I was incredibly fortunate to begin working with community members in Alaska on a project that sought to reconnect engraved scenes of human figures hunting, dancing, and traveling on 19th century walrus ivory drill bows with contemporary narratives of culture and place. Summer 2021 saw completion of the project *Our Stories Etched in Ivory / Qulip’yugut Iksiaqtuumaruat Tuugaami: The Smithsonian Collections of Engraved Drill Bows with Stories from the Arctic*. The book was published by

the Arctic Studies Center as Volume 10 in the series *Contributions to Circumpolar Anthropology*.

Our Stories Etched in Ivory combines drill bow stories from the Smithsonian National Museum of Natural History and National Museum of the American Indian with oral histories gathered from 40 contemporary Alaska Native contributors from Utqiagvik, Point Hope, Kotzebue, Shishmaref, Nome, St. Michael, and Anchorage. Stories of hunting and community life are accompanied by illustrations of cultural heritage objects from the Carrie M. McLain Memorial Museum in Nome, Alaska. A foreword by **Bernadette Y. Alvanna-Stimpfle**, Yaayuk, offers insight into the self-recorded world of walrus ivory carvers while the introductory essay by Amy Phillips-Chan draws upon collection studies, oral histories, and written texts to explore drill bow technology and the history of pictorial art in the Arctic. The appendices offer detailed information on Smithsonian collectors, a glossary of carving materials, and a visual catalog of heritage objects engraved with pictorial scenes. The final section features a dictionary of almost 100 engraved characters found on drill bows, from animals and objects to legends and activities. *Our Stories Etched in Ivory* prioritizes Indigenous knowledge and language by making space for community members to share their own stories and provides Inupiaq language names for places, animals, and objects. The publication marks a collaboration between the Smithsonian Arctic Studies Center, Carrie M. McLain Memorial Museum, and Bering Strait communities, to return Indigenous knowledge embedded within historical museum objects back to the Arctic.

Freshly printed copies of *Our Stories Etched in Ivory* arrived in Nome in July 2021. The town of Nome, known as Sitnasuak in Inupiaq, is located on the traditional homeland of the Inupiat, who have been

careful stewards of the land and waters of the Bering Strait region for generations. I am privileged to live and work in Nome at the Carrie M. McLain Memorial Museum and thus had the great opportunity to visit with local contributors and hand-deliver copies of *Our Stories Etched in Ivory* on which we had all worked. Over 100 additional copies of the book were mailed out to community contributors, schools, and cultural

centers across Alaska as well as other project partners who had assisted with the publication and museums and archives who generously shared materials from their collections.

The Carrie M. McLain Memorial Museum planned a special two-day Nome Community Book Event with local contributors on August 5-6, 2021 to celebrate the completion of *Our Stories Etched in Ivory*. Flyers regarding the book event were placed across town and shared via social media. Community members were invited to reserve a complimentary copy of the book, which they could pick up and have signed by contributors during the event. The KICY radio station in Nome invited contributor **Sylvester Ayek** and myself in to talk about the book and promote the community event. Sylvester (Inupiat) is a King Island Elder and contemporary artist who works with walrus ivory, wood, stone, and metals. His work can be found in public and private collections across the country. Sylvester has collaborated with the Smithsonian Arctic Studies

Center on several projects including the exhibition *Living Our Cultures, Sharing Our Heritage: The First Peoples of Alaska*.

The first day of the Nome Community Book Event featured a public presentation on ivory carving by artist and *Our Stories Etched in Ivory* contributor **Jerome Saclamana**. Jerome Saclamana (Inupiat) works in walrus ivory and bone and was recently recognized with a 2019 Individual Artist Award from the Rasmuson



A group of Nome contributors. Back row: Susan Omiak (representing father James Omiak), Janice Knowlton (representing father Francis Alvanna), Yaayuk Alvanna-Stimpfle, Sylvester Ayek, Wilfred Anowlic, John Penatac Sr., and Joseph Kunnuk Sr. Front row: Amy Phillips-Chan, JJ Alvanna (representing father Francis Alvanna) holding daughter Suluk, and Jerome Saclamana. Photo by Amy Chan



Amy and Yaayuk Alvanna-Stimpfle. Photo by Amy Chan

Foundation. In 2015, he participated as an Artist in Resident for the Smithsonian Arctic Studies Center Material Traditions: Sculpting Ivory project. Jerome flew in from Anchorage to offer a presentation at the Carrie M. McLain Memorial Museum on August 5, 2021. Over 35 people gathered around tables filled with carving tools and materials to listen to Jerome share stories about learning how to carve and inspiration behind his work. Jerome also discussed his recent endeavor carving a walrus ivory drill bow in the manner of his father Mike Saclamana Sr. and demonstrated a circle-and-dot etching technique upon the drill bow's surface.

On August 6, 2021, a crowd of over 75 visitors packed into the Carrie M. McLain Memorial Museum for the second day of the Nome Community Book Event. *Our Stories Etched in Ivory* contributors, **Yaayuk Alvanna-Stimpfle**, **Wilfred Anowlic**, **Sylvester Ayek**, **Joseph Kunnuk Sr.**, and **John Penatac Sr.** introduced themselves and spoke about carving and growing up on King Island and in Nome. Descendants of contributors **James Omiak** and **Francis Alvanna** talked about their fathers, including **Susan Omiak** (representing father James Omiak) and **Janice Knowlton** and **J.J. Alvanna** (representing their father Francis Alvanna). Members of the public were then invited to visit with contributors and have their books signed. Community members mingled with each other while checking out a display of engraved ivory carvings from the museum collection and enjoying refreshments that included fresh *aqqiq* (salmonberry) appetizers and a cake decorated with the book cover.

Our Stories Etched in Ivory brings to life visual records of 19th century life in western Alaska that were carefully engraved on drill bows and that have been hidden in Smithsonian storerooms for more than a century. The Nome Community Book Event offered a wonderful occasion to celebrate the intellectual return of these remarkable "story-books" and to honor the rich knowledge and contributions of Elders, carvers, and artists. For all of our colleagues and community contributors outside of Nome, you were in our hearts and thoughts. Quynaqqak. Thank you so much.



A crowd gathered in the Carrie M. McLain Memorial Museum on August 6, 2021, to celebrate the release and to have copies signed by contributors

NEWS

SUSAN ROWLEY APPOINTED DIRECTOR OF UBC MUSEUM OF ANTHROPOLOGY

By Bernadette Driscoll Engelstad



The Arctic Studies Center extends congratulations to Dr. Susan Rowley on her appointment as Director of the UBC Museum of Anthropology (MOA) in October 2021. Susan brings extensive expertise to this position as a long-term curator at MOA and professor of Anthropology at UBC. In addition to Arctic archaeology, her research encompasses a wide range of specialties

including public archaeology, material culture studies, oral history, repatriation, intellectual property rights, and Indigenous access to cultural heritage.

Completing her doctoral dissertation at the University of Cambridge in 1985 (Rowley 1985), Susan began a post-doctoral fellowship in the Smithsonian's Anthropology department. Her analysis of Charles Francis Hall's unpublished diaries recording Inuit oral history related to the Frobisher expeditions is described in a chapter in *Archaeology of the Frobisher Voyages* (1993) edited by **William W. Fitzhugh** and **Jacqueline S. Olin**. Thereafter, she prepared a small-scale traveling exhibit of *Inua: Spirit World of the Bering Sea Eskimo* which was hosted at several European venues with a companion publication translated in multiple languages (Rowley et al. 1988). She also worked closely with Smithsonian anthropologist **JoAllyn Archambault** on exhibit projects with Hopi and Seminole knowledge-holders, developing an early appreciation for engaging Indigenous voices, scholars, and communities in the formation of museum projects.

Throughout her career, Susan remained deeply committed to joint endeavors in material culture studies, museum work, and archaeological practice. In 1987 she collaborated with educator **Carolyn Macdonald** to establish the Igloodik Archaeology Field School, training local students in archaeological field sessions from 1990 through 1996. Her early interest in Inuit oral history resulted in a key collaboration with **John R. Bennett**, former editor of Inuktitut magazine, entitled *Uqalurait*:

An Oral History of Nunavut (2004). The publication brings together a compendium of quotations on Inuit identity, social life, and cultural principles recorded by Inuit Elders from the 1920s to contemporary times and is amply illustrated with drawings, prints, and sculptures by contemporary Inuit artists, including **Kenojuak Ashevak**, **Helen Kalvak**, **Jessie Oonark**, **Janet Kigusiuq**, and many others from across the Canadian Arctic.

Working closely with the Musqueam community in southern British Columbia, Susan served as MOA representative to the Reciprocal Research Network in designing a digital database enabling researchers and Indigenous communities to access artifact collections held by museum partners, including the Canadian Museum of History, the American Museum of Natural History, the Pitt Rivers Museum at Oxford University, the Museum of Archaeology and Anthropology, University of Cambridge, and the Smithsonian Institution (Rowley 2013). Of particular note, she served on the curatorial team for the recent exhibition *časna?əm, the city before the city*, a partnership of the MOA and key cultural partners in Vancouver, B.C. examining the ancient village site on which part of Vancouver was built, encompassing prehistoric, historic, and contemporary Musqueam culture and community.

Founded in 1949, MOA is housed in a stunning architectural environment designed by Canadian architect **Arthur Erickson** which opened in 1976 and had a major recent expansion and exterior grounds designed by **Cornelia Hahn Oberlander**. The landmark plaque marking the entrance to the museum acknowledges the museum's siting on the unceded territory of the Musqueam people. Following a distinguished corps of directors and internationally renowned cultural leaders like **Michael Ames**, **Ruth Phillips**, and **Anthony Shelton**, **Susan Rowley** begins a much-anticipated tenure at one of the world's most innovative museums of Indigenous art and cultural history—a museum to which she has already made significant intellectual and curatorial contributions in supporting Indigenous claims to cultural heritage, facilitating Indigenous access to museum collections, ensuring Indigenous participation in museum practice, and training Indigenous and non-Indigenous scholars, researchers, and museum staff.

Rowley, S. 1985. *The Significance of Migration for the Understanding of Inuit Cultural Development in the Canadian Arctic*. Unpublished PhD thesis, University of Cambridge. See also: Rowley, S. 1985. Population Movements in the Canadian Arctic. *Études/Inuit/Studies* 9(1):3-21.

Rowley, S.D.M, W.W. Fitzhugh, and S.A. Kaplan. 1988. *Inua: Spirit World of the Bering Sea Eskimo*. Washington DC: Smithsonian Press.

Rowley, S. 2013. The Reciprocal Research Network: The Development Process. *Museum Anthropology Review* 7(1-2):22-43.

FURTHER NOTE ON ROWLEY FAMILY HISTORY

By *Bernadette Driscoll Engelstad*

As a second-generation Arctic scientist, **Susan Rowley** had an early familial introduction to the North, and her parents, **Graham** and **Diana Rowley**, were well-established Arctic specialists. As detailed in the memoir, *Cold Comfort: My Love Affair with the Arctic* (1996, 2007), Graham participated in the British Musk-ox Expedition, carrying out archaeological excavations in the Eastern Canadian Arctic in the late 1930s. Receiving a small collection of Dorset period artifacts, unearthed by Inuit families building winter quarters on an island in Foxe Basin from the Oblate missionary **Father Etienne Bazin** (1903–1972) in Igloodik, Rowley Sr. returned to the region in the summer of 1939, excavating almost 1500 artifacts now in the collection of the Museum of Archaeology and Anthropology, University of Cambridge. Highlights of this collection are described by G. Rowley in the *American Anthropologist* (1940 v. 42) and *Artscanada* (Dec 1971/Jan 1972) and by **Jorgen Meldgaard** in *Eskimo Sculpture* (1960). Most recently, a selection of these ancestral objects, including human figure carvings, amulet pendants, and a carved antler wand with 27 incised portraits, have been illustrated in the exhibit publication, *Arctic: Culture and Climate*, by Amber Lincoln, Jago Cooper, and Peter Looovers (The British Museum, 2020).

Following a career in northern service with the Canadian government, Graham Rowley joined the Anthropology department at Carleton University in Ottawa, providing bursary assistance to many students (myself included) to undertake fieldwork projects in the North. Diana Rowley (1918–2018) had a long and illustrious life in Arctic affairs also, serving as the editor of the journal *Arctic* (1949–1955) published by the Arctic Institute of North America and as founding editor of the *AINA Technical Papers* (1956–1970). Her life is detailed in a lengthy obituary published in *Arctic* v.71(4):465-466 in 2018. Joining with colleagues in Ottawa, the Rowleys created the Arctic Circle Club in the late 1940s, a gathering of scientists, scholars, and government administrators which continues to this day. The *Arctic Circular*, the group's newsletter, initiated and edited by Diana Rowley (1948–1967), offers an exceptionally lively and well-informed history of early Canadian Arctic research.

NORSE IN NEWFOUNDLAND IN 1021

By Brian Handwerk

[Excerpts from a Smithsonian Magazine B.H. article of 20 October 2021, drawing on the original Kuitems et al. 2021 publication in Nature: Evidence for European presence in the Americas in ad 1021 (nature.com)]

Three rough pieces of wood—discarded sections of branches and tree stumps found among the refuse Vikings left behind after their short sojourn in Newfoundland—have turned out to be some of the more important evidence of the Norse in North America. The scars left by iron blades on these sections of fir and juniper can still be seen after more than 1,000 years...

A new study of wooden artifacts found at Newfoundland's famed L'Anse aux Meadows site shows that Vikings lived, and felled trees, on North American soil exactly 1,000 years ago—during the year 1021 C.E. The evidence, published today in *Nature*, means that these Norse seafarers accomplished the earliest known crossing of the Atlantic from Europe to the Americas. Such incredibly precise dating of the wood was possible thanks to an intriguing new method that examined growth rings for a once-in-a-millennium cosmic-ray event that showered Earth with high energy particles in 993 C.E. Finding that telltale spike in the tree rings allowed scientists to count additional rings outside that mark to pinpoint the exact year the Vikings cut fir and juniper trees here, as they lived and explored on the edge of the continent.

"I am impressed by the results," says **Thomas McGovern**, an archaeologist at Hunter College in New York City who was not involved in the research. "The site continues to provide data after all these years. I think the date is totally plausible and fits with **Birgitta Wallace's** original idea of a fairly short, circa 1000 [C.E.] settlement event," adds McGovern, who has spent some two decades studying the demise of Norse settlements in Greenland. Wallace, a former Parks Canada archaeologist and co-author of the research, spent many years working at the L'Anse aux Meadows site.

The remains of eight sod and timber buildings were found, including workshop spaces and a forge used

to craft iron tools. Experts consider L'Anse aux Meadows a base for further explorations, a site where Norse might overwinter, repair their ships, or stockpile provisions and trade goods. Such sites are described in the sagas as key waypoints in the Vinland adventures of explorers like **Leif Eriksson**. "Here we are fixing in time these somewhat legendary [Norse] sagas," says co-author **Michael Dee**, who specializes in the study of isotope chronology at the University of Groningen. "We're providing some scientific evidence to say at this exact moment in time, this happened..."

Timber was critical for the Norse in Newfoundland.

Wood provided fuel for heat and cooking, as well as material to construct timber and sod buildings and famous Viking longships. Hundreds of wood chips, shavings and discarded pieces have been found from the workshops at L'Anse aux Meadows. Co-author Margot Kuitems... sorted through wood scraps from L'Anse aux Meadows at a storage facility in Dartmouth, Nova Scotia, where the excavation's archaeological remains are stored. She selected three wooden artifacts

that she knew were produced by Vikings, not only because they were found in context at the site but also because they showed clear markings of being cut and shaped with metal tools, which weren't used by the area's Indigenous residents....

Dendrochronological archives from around the world, in Germany, Ireland, Arizona and Japan, provide evidence that in 993, a cosmic radiation event, probably an enormous solar storm, caused a huge spike in atmospheric carbon levels that can clearly be measured in tree ring samples. "On rare occasions, once or twice a millennium, you get these blips in the record probably from solar storms that created a sudden surge of radiocarbon that gets absorbed by that tree ring," Dee says.

After identifying the 993 anomaly in the tree ring history of wood artifacts from the Viking settlement, it was a fairly simple matter to count each year's growth ring all the way to that critical bark layer still clinging to the wood. The team determined that each of the three different trees used to produce the wooden artifacts was felled exactly 28 years after the major cosmic-ray spike, in 1021, an apparently busy year of woodcutting for Norse in North America. By



A piece of wood from the Norse deposit at L'Anse aux Meadows M. Kuitems

examining cells on the bark edge, the group could even determine in what season of the year each tree was felled....

Cosmic ray events like the 993 burst are very rare in the historical record. But because they are global in scope, their telltale signatures can be found in trees and wood around the world. That means the innovative new dating technique Kuitens and Dee used will likely be employed at archaeological sites far and wide.

[Ed: permission for this excerpt has been approved by Smithsonian and **Bryan Handwerk**.]

YALE ANALYSIS UNLOCKS SECRET OF THE VINLAND MAP—IT’S A FAKE

By Mike Cummings

[Ed. note: In 1998 I inspected the Vinland Map with map expert Dr. **Douglas McNaughton** while preparing the exhibition, *Vikings: The North Atlantic Saga* (Fitzhugh and Ward 2000). The following excerpts from a Yale News announcement on 1 September, 2021, is hopefully the last nail in the VM coffin.]

The Vinland Map, once hailed as the earliest depiction of the New World, is awash in 20th-century ink. A team of conservators and conservation scientists at Yale has found compelling new evidence for this conclusion through the most thorough analysis yet performed on the infamous parchment map.

Acquired by Yale in the mid-1960s, the purported 15th-century map depicts a pre-Columbian “Vinlanda Insula,” a section of North America’s coastline southwest of Greenland. While earlier studies had detected evidence of modern inks at various points on the map, the new Yale analysis examined the entire document’s elemental composition using state-of-the-art tools and techniques that were previously unavailable. The analysis revealed that a titanium compound used in inks first produced in the 1920s pervades the map’s lines and text.

“The Vinland Map is a fake,” said **Raymond Clemens**, curator of early books and manuscripts at Yale’s Beinecke Rare Book & Manuscript Library, which

houses the map. “There is no reasonable doubt here. This new analysis should put the matter to rest.” The new study also uncovered evidence that the map deception was intentional. A Latin inscription on its back, possibly a bookbinder’s note guiding the assembly of the *Speculum Historiale*—an authentic medieval volume and the likely source of the map’s calfskin parchment—is overwritten with modern ink to appear like instructions for binding the map within the genuine 15th-century manuscript. “The altered inscription certainly seems like an attempt to make people believe the map was created at the same time as the *Speculum Historiale*,” Clemens said. “It’s powerful evidence that this is a forgery, not an innocent creation by a third party that was co-opted by someone else, although it doesn’t tell us who perpetrated the deception.”



A scanning x-ray fluorescence spectrometer hovers over the map. The instrument created elemental maps revealing the distribution of elements throughout the map

Yale created a sensation in 1965 when it announced the Vinland Map’s existence and published a scholarly book about it by Yale librarians and curators at the British Museum in London. Its discovery seemed to demonstrate that Norsemen were the first Europeans to reach the New World, landing in the Americas well before Columbus’ first voyage. (Archeological discoveries at L’Anse aux Meadows in Newfoundland during the 1960s confirmed that the Vikings had built settlements in the Americas long before Columbus sailed.) From the beginning, however, scholars began to question the map’s authenticity. And over time an overwhelming consensus has emerged that it is indeed a 20th-century forgery.

An In-House study

...[The Yale study] allowed the researchers for the first time to systematically examine the map alongside the two medieval texts with which it was originally bound. One is the *Speculum Historiale*, a popular four-volume medieval encyclopedia by **Vincent de Beauvais**.... The other manuscript, the *Hystoria Tartorum*, or *Tartar Relation*, is an account of a journey by two Polish clerics into the lands of **Genghis Khan** in mid-1200s. “Studying the three objects together is important to learning their full story,” said **Zyats**, head of rare books conservation for the Yale Library.... Radiocarbon dating performed on both manuscripts in 2018 showed

that their parchment and paper date approximately from 1400 to 1460, which correlates with prior carbon-dating done on the map. A watermark on a paper leaf of the *Speculum Historiale* is traceable to a papermill that operated in Basel during the 1440s, corroborating the theory that the two manuscripts were made during the Council of Basel, Zyats explained. Also, the text in both manuscripts is written in a similar style, likely by the same scribe....

The Big Picture

About the size of a placemat, the Vinland Map lacks the elaborate ornamentation of other medieval maps, such as the Beinecke Library's collection of portolan nautical charts. Patched wormholes dot its parchment. Much of its ink appears faded.

The members of the Yale team focused their attention on the ink used in the map. Using X-ray fluorescence spectroscopy (XRF), a non-destructive technique, they identified the distribution of elements throughout the map. While scientists for decades have used XRF to study the elemental composition of specific points on an object, Bezur said, only recently have they been able to use it to scan an entire two-dimensional object in a laboratory setting. "With macro-XRF, we can generate a one-to-one scale elemental map of the map," Bezur said. "That's huge because it allows us to share a full dataset of the entire map. We're not picking and choosing individual points. We're offering the big picture."

Medieval scribes typically wrote with iron gall ink, which is composed of iron sulphate, powdered gall nuts, and a binder (the first two are primary elemental ingredients of iron gall ink, and the third is often present as an impurity). The XRF analysis of the Vinland Map showed little to no iron, sulfur, or copper. Instead, the scan revealed the presence of titanium throughout the map's ink.

A scan of Vinlanda Insula, the portion of North American coastline that made the map famous, revealed high levels of titanium and smaller amounts of barium—a key revelation as the earliest commercially produced titanium-white pigments in the 1920s contained titanium dioxide and barium sulfate. Having mapped the distribution of elements, the team used Raman microscopy, a type of molecular microscopy, to confirm that the titanium dioxide in the map's ink is in the form of anatase. While an earlier study had utilized Raman microscopy in analyzing nine points on the map, the new study found that anatase is broadly distributed on the document....

To confirm that the map's ink was of modern origin, and that the anatase wasn't simply unique and naturally

occurring, the team performed field emission scanning electron microscopy (FE-SEM) on samples from the altered text of the *Tartar Relation* and the map. This process yielded highly magnified images of its ink's components, which showed that the anatase particles closely resemble those found in pigment that was commercially produced in Norway in 1923. Nothing suggested that the anatase was naturally sourced...

A Historical Object

"...Objects like the Vinland Map soak up a lot of intellectual air space," Clemens said. "We don't want this to continue to be a controversy. There are so many fun and fascinating things that we ought to be examining that can actually tell us something about exploration and travel in the medieval world...The map has become an historical object in and of itself," he said. "It's a great example of a forgery that had an international impact."

MEET ALLISON WILLCOX, NMNH DEPUTY DIRECTOR

By Kirk Johnson

[Ed. note: On 30 August 2021 Director Kirk Johnson introduced Allison Willcox to the staff.]

I am very excited to announce that Ms. **Allison Willcox** will be joining our NMNH community as the museum's new Deputy Director. Allison joins us from the Smithsonian's National Museum of African American History and Culture where she has held the role of



Associate Director for Operations since 2019 and is responsible for oversight of the museum's finance and budget process, human resources, information technology, digital, facilities, and business operations functions.

Since May, she has served as Acting Deputy Undersecretary for Administration under **Doug Hall** and has played a key role in leading the Smithsonian through the challenges of the COVID-19 pandemic. A skilled problem solver, she has a deep understanding of Smithsonian processes and policies and brings over 25 years of experience in museums and federal information technology. She's a trusted adviser on

museum operations and her experience in project management and business process improvement will be an invaluable asset to NMNH as we embark on the implementation of our 2021–2025 strategic plan.

Allison has a long history with the Smithsonian, joining NMAAHC in 2014 as its first Assistant Director for Information Technology, establishing the department as the museum prepared for its public opening and overseeing the full range of IT and digital services, including the museum’s web presence, interactive technologies, and IT infrastructure and operations.

Aside from serving in various information technology roles at the US Department of Agriculture, where she led the IT program and project management office for the Food and Nutrition Service, she has also held roles as an Anatomical Collections Manager at the National Museum of Health and Medicine and worked as a Biological Anthropologist in our very own NMNH Office of Repatriation. Allison holds a BA in Classical and Near Eastern Archaeology from Haverford College and has conducted anthropological fieldwork and research in Egypt, Italy, England, and the United States.

Please join me in giving a warm welcome to Allison!

ARCTIC CRASHES VOLUME WINS NMNH 2021 SCIENCE ACHIEVEMENT AWARD

In November 2021, the *Arctic Crashes. Peoples and Animals in the Changing North* (**Igor Krupnik** and **Aron Crowell**, eds., 2020, Smithsonian Institution Scholarly Press—see ASC Newsletter 28) received the NMNH 2021 Science Achievement award. The book was produced as an outcome of the ASC-inspired Arctic Crashes project of 2014–2018; it included papers delivered at two symposia in 2015 and 2016, plus several articles specially written for this collection. The NMNH annual Science Achievement awards are selected from many submissions by a special team established by the NMNH Senate of Scientists; they are commonly announced by the end of the year with a \$2,000 prize given to the winners’ research funds. Six awards were given in 2021 to NMNH scholars, as announced by the NMNH Associated Director and Chief Scientist, **Rebecca Johnson**; the “Arctic Crashes” award was in the ‘book’ category. We salute the large international volume team—35 contributors from the U.S., Canada, Greenland, and the Netherlands—as well as their partners at the Smithsonian SP, **Meredith McQuoid-Greaseon**, production editor, and **Ginger Minkiewicz**, the press director—on their excellent product. The book has already generated several positive reviews and it is to serve as an insightful summary of human-animal-climate relations in the Arctic for years to come.

RESEARCH

ARCHAEOLOGY OF THE INDUSTRIAL FRONTIER IN ST. PAUL RIVER, LOWER NORTH SHORE, QUEBEC

By Francisco Rivera

The “industrial frontier” is the area on the periphery of major industrial centers comprised of industries, mines, factories, lumber camps, fisheries, and other modern infrastructures that target regional labor forces and transform resources wrested from the soil, the forest, and the sea. Between July 24, 2021, and September 10, 2021, fieldwork was conducted in Rivière-Saint-Paul on Quebec’s Lower North Shore for my postdoctoral project at the Arctic Studies Center titled “Memory, Materiality, and the Industrial Frontier on Quebec’s Lower North Shore (1860–1960).” The research in Rivière-Saint-Paul’s recent past is part of Dr. **William Fitzhugh**’s Gateways Project conducted in collaboration with Dr. **Brad Loewen** of the Anthropology Department of the Université de Montréal. The aim of my project is to develop the local industrial frontier harnessing the interdisciplinary potential of archaeology, ethnography, and history. It focuses on the period between the nineteenth and twentieth centuries and connects today’s community interests with the region’s deep historical trajectory of human occupation and adaptation in the territory.



Figure 1: The remains of the Whiteley House

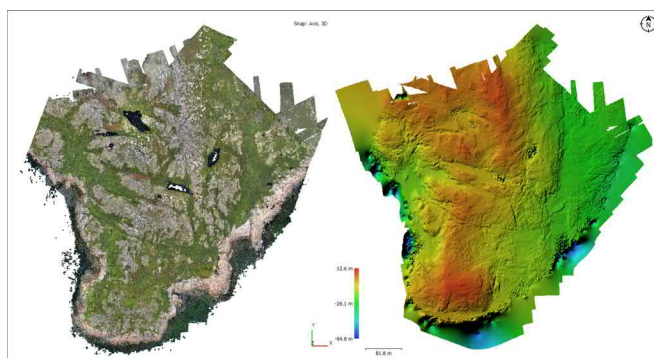


Figure 2: 3D model (left) and digital elevation model of the southern part of the Bonne-Esperance Island

The project's general objective is to build knowledge about the industrial frontier in Rivière-Saint-Paul. Specifically, to: (1) understand the origin and historical development of the industrial guano plants and fishing establishments in the archipelago between 1860 and 1960, (2) learn from the local community and share knowledge with its members in an inclusive manner at all stages of the research, and (3) develop a digital archaeology approach by using recording technologies such as drone surveys and 3D modeling of artifacts and museum objects.

My 2021 fieldwork surveyed and mapped two important historical sites: the Whiteley Fishery on Bonne-Esperance Island and the guano plant at Factory Point on Caribou Island. Interviews were conducted to collect oral history related to past and present Rivière-Saint-Paul. These discussions were used to compare historical narratives with the daily lives of the people. To complete the historical framework, one of the most important documents that guided the research is the diary of **Charles Carroll Carpenter** (1856–1909), a local missionary who lived in the region. His diary was used to reconstruct nineteenth-century paths, houses, and other features of the cultural landscape. The memoirs of the Whiteley family, who owned the fishing establishment, also served as major sources.

The Whiteley Fishery, Bonne-Esperance “Boney” Island, 1860–1970

Located on a rocky coastline at the southern end of Bonne-Esperance Island, the fishery of **William Henry “Bossy” Whiteley** (1834–1903) operated between 1860 and 1970. Originally from Newburyport, Massachusetts, Whiteley traveled to Labrador in 1850. Using an inheritance from England, Whiteley founded a fishery in Bonne-Esperance ten years later. Operating mainly in the summer, the fishery focused its activities on salmon, cod, and mackerel and employed up to 150 workers at the end of the nineteenth century. In 1869, Whiteley built a house on the island where his wife **Louisa Thompson** and their twelve children lived. After he died in 1903, his sons operated the fishery but experienced economic difficulties. The Great War led to a labor shortage. The workforce dropped to less than thirty employees, and the Whiteley family was struck by debt. In 1945, the Standard Fish Company of Montreal bought the Whiteley family company. As the interviewees explained, its operations ceased around 1970; the buildings fell into disrepair and some, including the Whiteley house and wharf, were looted and burned (Fig. 1).

In the area around Boney where the Whiteley fishery was located, the visible remains of the wharf, the Whiteley house, the well, the drinking water pool,

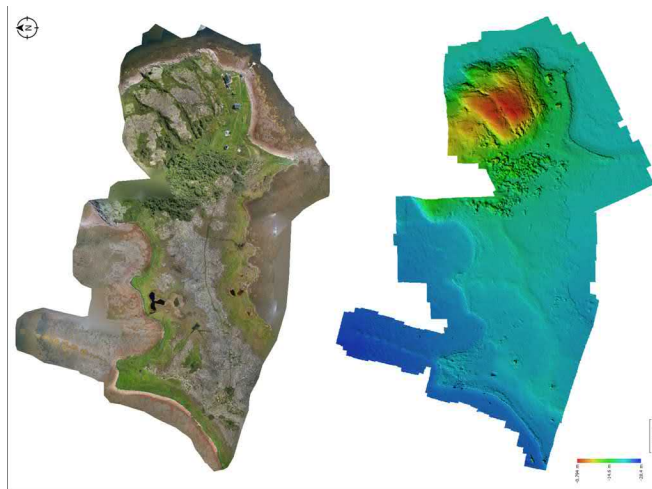


Figure 3: 3D model and digital elevation model of Factory Point on the north side of Caribou Island

and the lookout at the top of the hill with its inukshuk were surveyed and mapped. A drone (DJI Air 2S model) helped map the island's features and identify the areas described by Albert Whiteley in the sketch of the site published in his book *A Century on Bonne Esperance* (1977). The network of paths and walkways that radiate from the dock and house were also identified. According to historic photographs, the wharf was surrounded by a dozen one-story and two-story buildings that served as the living quarters for fishermen and workers. The exact locations of these features were included on the digital elevation model (DEM). In addition, the location of the Whiteley house with its wood remains and features was useful for interpreting its architectural plan (Fig. 2).

Factory Point, ca. 1860–1910

A guano (seabird excrement) factory was established at Factory Point, at the north end of Caribou Island, as early as the mid-nineteenth century. According to interviews with Rivière-Saint-Paul residents, the factory was no longer in operation during the early twentieth century and probably ceased operating during the late nineteenth century. Ownership of the plant is uncertain. Several interviewees indicate that the factory may have belonged to the Job Brothers of St. John's, while others suggest that it belonged to other companies based in Newfoundland or Quebec. A search of archives at Memorial University in St. John's so far has failed to clarify the ownership question.

The visible archaeological remains at Factory Point were surveyed and mapped. The most obvious feature is the rock foundation of the old pier, a structure that extends into the water approximately 150 meters. Other features include a wharf, well, water canals, wagon tracks, storage pits, roadways, and what seems to be the negative imprints of built structures. In addition,

there were remains of metal structures that probably date to the 1940s or 1950s, and a series of canals for water drainage leading to a storage pool. The east side comprises three more recently built cottages. In the nineteenth century, Carpenter described this area in his diary as the place where the school was built for the inhabitants of the region. The drone survey helped build a DEM of the area and identify features for future archaeological work (Fig. 3).

The Contemporary Past: The Fish Plant and the Old Wharf

Salmon Bay and the fish plant are both important contemporary sites. The small fishing village of Salmon Bay has new houses and cottages built by Rivière-Saint-Paul residents. The village also has an old wooden dock that is the last one of its kind in the area.

With fishing boats moored at its dock, the modern fish plant is also a major contemporary site. The plant opened in the early 1990s after a fish plant located on Esquimaux Island ceased operations. Plant Manager **Bradley O'Brien** kindly showed us inside the plant where the workers process halibut that arrives on the morning boats. On the production line, workers behead the large bottom fish, clean, weigh, and pack them in boxes with ice. It is a simple but effective process. The crew is comprised of approximately twenty men and women who come mainly from the surrounding towns of Old Fort, Rivière-Saint-Paul, and Middle Bay.

It is interesting to note O'Brien's perspectives of the past and the historical fishing sites because they testify to the coastal lifestyle and the many years and generations associated with fishing industries. Bradley explained the plant's operations, organization, and technologies. His explanations allowed us to imagine the industrial work at the Whiteley Fishery and to compare contemporary and past production modes. O'Brien also shared his vision of tourism related to the cultural richness that this region offers in terms of economic potential. Themes surrounding the region's archaeological heritage emerged from this conversation. These included ways to incorporate archaeological projects conducted on the region's contemporary sites to study present-day economic and social dynamics, and the continuity of fishing practices.

Finally, beyond the specific objectives of the project, it was also important to document another relevant historical site in Rivière-Saint-Paul's surroundings: the so-called "Old Wharf" located 5.25 km (3.3 mi) south of the village on the east side of Esquimaux Island. As this site will soon be dismantled as part of a pollution clean-up process, a drone survey was conducted to map the site and its machinery and engines. Former

residents explained its history, including the ancient maritime island lifestyle, the harsh environment, and the resiliency of the people who ventured to these islands. We also discussed the nostalgia related to a bygone era and lifestyle. Interviewees shared their perspectives regarding the inevitability of change and the importance of heritage places that are often perceived as valueless and neglected. While the Old Wharf is in ruins today, local memory persists about the original location of each building and the functions of the wharf's different parts. This knowledge feeds a living past anchored in the ruins of a once-pivotal place.

Public Outreach

As part of our public outreach, presentations were given at the local school. Due to the COVID-19 pandemic, the school included students from other locations (e.g., Old Fort, Blanc-Sablon). This provided a larger audience to share the project's activities and the Smithsonian's interest in developing archaeological projects in the region. The presentations focused on the role of archaeologists, our specific project in Rivière-Saint-Paul, and the potential for archaeological development of the region's recent history (Fig. 4).

In addition to the school presentations, 48 heritage assessment surveys were conducted with residents and local stakeholders, such as the employees of the Coastal Association, officials from the Bonne-Esperance municipality, fishing plant workers, and the school's teachers and students. The survey was anonymous and consisted of six questions that sought to assess the community's interest in archaeological and historical heritage and options for studying and preserving this heritage. The results will be presented in a forthcoming article and will be used to plan future activities in Rivière-Saint-Paul.



Figure 4. Presentation at the school in Rivière-Saint-Paul. Photo by Francisco Rivera

Conclusions and Prospects

The archaeological work on Rivière-Saint-Paul's historic sites, such as the Whiteley Fishery and Factory Point, was supplemented by the documentation of contemporary winter habitation sites used by local families. This information testifies to the local mobility of the residents who live between the islands and the interior at different times of the year. Carpenter's diary describes that the **Whiteley**, **Chalker**, and **Goddard** families, among others, had winter homes, trapping, and hunting sites upstream from St. Paul village. Visiting these places helped sketch an initial map that provides opportunity for later surveys and excavations. Their localization provided an overview of mobility practices and a better understanding of the occupational history and social construction of the cultural landscape. Our information will facilitate the second stage of work (i.e., the material culture approach of in situ recording including targeted excavations). Research planned for 2022 will incorporate surveying and mapping of these winter sites to understand how they were related to each other.

The digital approach used during this first year of fieldwork raised the interest of the community, who saw potential for the documentation heritage places and of the archaeological artifacts exhibited at the local Whiteley Museum. The use of computer tools to create 3D models of artifacts may allow the museum to digitally open its collections, which could increase local interest in the archaeology. However, while discussing these possibilities with Rivière-Saint-Paul residents, concerns were voiced related to follow-up activities and the continuity of this long-term project, which requires the commitment of different actors.

In summary, this initial fieldwork has characterized and contrasted the archaeological material and examined oral and documentary sources (e.g., papers from the Public Archives of Canada). Rivière-Saint-Paul, as part of the industrial frontier of Quebec, is an ideal case study to conduct archaeological analysis of the complexities of practices and social relations at work in local industries during the recent past. Furthermore, it provides the opportunity to study the genealogy of historically active industries that contributed to shape local identities.

Acknowledgments. Thanks to William Fitzhugh, Brad Loewen, **Eileen Schofield**, **Karen Fequet**, **Cindy Thomas**, **Brenda** and **Philip Nadeau**, and the residents of Saint Paul's who welcomed me and shared fragments of their lives. Special thanks go to **Garland Nadeau**, whose help and support allowed me to carry out this project.

CROSS MOUNTAIN NORTH: MORE ARCHAEOLOGY IN THE VERMONT HILLS

By William W. Fitzhugh

Duplicating my covid adaptation strategy last year, I returned to the hills behind my Vermont isolation post where, with local students in 2020 I excavated a small 1820s farm site high in the hills above the Connecticut River (see: Fitzhugh, 2021). An 1820s "Farm in the Fairlee Forest", Vermont. *Journal of Vermont Archaeology* 15:68-94). The new site, Cross Mountain North (CMN), is less than a kilometer from last year's and faces north above Glen Falls Brook. The northern exposure suggested it might be a summer farm occupied by the family who lived at CM South; the latter site, which we excavated in 2019, has a southern aspect, high sod foundation walls, and deep cellar pit, suggesting a winter occupation.

There were many other interesting questions too, as I set to work with 2020 veterans **Kai Harris** and his mother, **Samantha**, **Cora Day** (now at Wheaton College) and her mother and father, Dartmouth undergraduate **Sovi-Mya Wellons**, Syracuse University PhD candidate **Matthew O'Leary**, and my wife, **Lynne Fitzhugh**, who was searching the town archives for historical clues. The 2021 goal was to map and test the site to determine its extent, preservation, and age. We spent two weeks working in sweltering heat and learned a lot but discovered CMN was a much more complicated place than I had imagined.

Cross Mountain North lies on a 1,000 square meter hillside plateau—one of the few places in the high forest country where a small farm might survive—albeit with much sacrifice and hard work! Unlike CMS's single small house, CMN has four structures: a large stone and earth foundation with a large central hearth pile (S1), a small cottage with a cold storage pit



S-2 cottage dwelling with collapsed chimney to left and refuse hearth to right

(S2,3), and a large barn foundation (S4). We mapped and excavated parts of these features and conducted a metal detector survey. No stone garden or fence walls are present, as at CMS. A small seep across CM trail south of S1 may have been the site's water source.

Unlike the previous site, CMN is really a 'site complex' since all four structures and the lands around them appear to have been part of a single functioning farmstead. So far, no historical records have been found, and there may have been more than one tenant and economic activity represented besides farming. Artifacts suggest a date in the early 19th century, about the same time as CMS which has similar artifacts and is dated ca. 1820s by three Liberty Head pennies.

Structure 1. This structure is in a field of ferns that probably results from the soil's organic enrichment. Its thick east and north foundation walls are made of boulders and earth. Its west wall is less well defined, and its south foundation is completely missing. A 3x4 meter diameter hearth pile of boulders and bricks lies in the center. Excavation in the hearth produced a 19th century table knife, square-cut nails, ceramics, and window glass. Cut nails were also found on top of the foundation walls. The west wall produced a large milk pan and other ceramics, an iron scythe blade and hoe, cut nails, and a few decorated ceramics. Underlying this surface layer were mixed deposits that contained bricks, charcoal, nails, and domestic ceramics. This layer was redeposited from somewhere else. A midden outside the east wall contained fragments of milk pans, domestic ceramics, a bone-handled table knife, a metal pail handle, iron barrel hoops, cut nails, window glass, pig teeth, and large and small animal bones. Unlike CMS, this structure contained no decorated blue transfer print tableware.

Under a rock in the south wall we found a plastic early 1970s snowmobile route sign. Structure 1 had a complex history that left only its east and north walls and hearth intact. The west side of the floor had been scraped (bull-dozed?) and replaced with clear pea-gravel, perhaps coinciding with the snowmobile sign.

Structure 2. This structure was defined by its 4x5 meter rock foundation. We excavated the entire structure and found early 19th century artifacts including domestic pottery, cut nails, and other items associated with the wall foundation, but almost nothing inside, probably

because the building had a plank floor. Bricks along the west wall marked the remains of a chimney. A trash dump outside the northeast corner produced early 19th century artifacts and pig and bovid bones. The small number of finds suggests a brief occupation, possibly only a single year.

Structure 3. A deep pit adjacent S2 contained bricks from the collapsed S2 chimney but had nothing else inside. Access was through a semisubterranean entry where we found an iron door latch and a burned ceramic plate. This feature seems to have been used as a root cellar or cold-storage for the S2 cottage.

Structure 4. A rectangular stone foundation 80 m west of S1 may have been a barn. We did not have time to map this structure, but metal detector hits produced numerous cut iron nails, a piece of decorated white tableware. A metal beverage can and a few large wire nails outside the structure indicate 20th century activity.



Sovi-Mya Wellons and Matthew O'Leary excavating a trench through the S-3 cold storage hut

Stone Piles and Brick Dumps. Several stone piles between S1 and S4 appear to be the result of clearing rocks from the site's infield pasture. The largest is a linear mound of rocks five meters upslope from the storage pit. They probably originated from rocks excavated during pit construction and were used to divert rainwater from entering the pit. Several large brick concentrations around S1 may be chimney remains.

Summary

Cross Mountain North is the largest archaeological complex known in the upland Fairlee forest region. Since CMS has a northern exposure and contained farm implements and evidence of field stone clearing, it appears to have been a summer enterprise, whereas CMS, with its southern exposure, may have been a winter site, both possibly used seasonal summer and winter locations by a single family. For a brief period in the early 19th century, it functioned as a small family farm that began as a small cottage and cold storage cellar, but soon grew into a larger farm with a larger dwelling and a barn. But it may have had other functions and chronology, possibly including early 19th century timbering or charcoal production, and in the late 20th century use as a shelter during the early snowmobile era. The many questions about this site call for continued fieldwork and further research in town records.

TSHIKAPISK LABRADOR RESEARCH IN 2021

By Anthony Jenkinson

In January 2021 I drove from Sheshatshit to Mary's Harbour in southern Labrador to visit relatives. I had heard of Jeff Martin's archaeological collections from Cartwright but did not know I had a family connection to the Cartwright Martins. My daughter and her husband, who used to live in Cartwright, were close friends with **Tracy** and **Jeff Martin**, so I added a Cartwright side trip to my homeward leg. That is how I found myself looking at stone artifacts of the same types, lithic material, and even color, as finds from excavations at the large Shashish Innu/Intermediate FjCa-51 site in the modern Innu village of Sheshatshit.

Bill Fitzhugh and **Jeff Martin** have expertly described the Cartwright North River lithic collection in the 2021 Newfoundland Annual PAO Review issue. Jeff also showed me a decorated bone object picked up many years ago on Dumpling Island by his late mother-in-law: a carved bone Innu pipe cleaner that was identified from an e-mailed photo by **Stephen Loring**. Many examples of these objects exist in ethnographic collections, including 13 at the Field Museum in Chicago collected by **Frank Speck**, one from a Mushuauinnu source near Davis Inlet/Utshimassits collected by **W.D. Strong**, at least two from the Brador

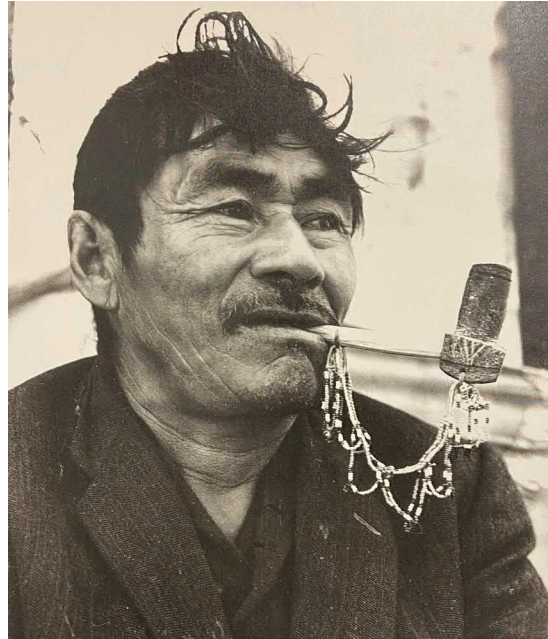
Post (now housed in the Regional Museum in Sept Iles), examples from Nutashkuant and Unamenshipit collected by **W.F. Stiles** in 1957, and many others. Pictured here are the Martins' Dumpling Island pipe cleaners, an example from Unamenshipit/La Romaine,

and another from Nutashkuant. The latter two were obtained by Stiles (center photo) in 1957 and by Frank Speck (right) in 1927 from Innu at Unamenshipit and Nutashkuant (Natashquan).

My northern fieldwork at Kamestastin did not begin until mid-May. By that time lake crossings involved dodging expanses of deep slush. A combination of late arrival and the progressive shrinking of the skidoo season led to difficult logistical challenges in getting people and gear from the airstrip at the west end of Kamestastin to the Tshikapisk camp and to our cabin at the east end narrows. For the first time in several years 2021-2022 has brought us a winter corresponding to remembered norms before climate change became obvious.

Although ice conditions allowed for only a couple of visits to the south side of the narrows where I had hoped to continue investigating the Napeu Atik site, the large Tshiash Innu caribou ambush site, Mistanuk (GICs-08), remained accessible by skidoo, on foot, and later by canoe until the end of June. Like the nearby Shak Selma site, which has produced the oldest dates so far from Kamestastin and interior Quebec/Labrador, Napeu Atik has a similar pit feature with abundant white quartz. However, the Napeu Atik pit feature has not yet been excavated beyond exposing its palaeo-surface opening, signalled by a trail of quartz that slopes down beneath the occupation floor into the sterile substrate.

Mistanuk has been known of from the earliest days of the Tshikapisk/Smithsonian surveys, but its importance and extent were not as clear as now because parts were buried by downwash. After test-pitting suggested separate components lay on at least three different levels, excavation began at the lowest of the three, where small combustion features contained deposits of



Tsheniu Katshena smoking a carved stone pipe photographed by Ray Webber in 1965 at Utshimassits



Dumpling Island pipe cleaner in the Jeff and Tracy Martin collection, an elaborately carved example from Unamenshipit/La Romaine, and another from Nutashkuant

small to micro-Ramah debitage. The latter was found with red ochre and calcined bone. The first feature produced fragments of two large Ramah chert bifaces and was surrounded by Ramah debitage and ochre. More extensive occupations were later exposed in the upper two levels. Both appeared to feature hearths within structures, with the Napanakapeu Component defined not only by paired boulders but by debitage, calcined bone, and red ochre. At the northern end of Napanakapeu was another buried fire pit that may have been part of the hypothesized structure.

We also excavated the perimeter of the Mistasuapi Component, the intermediate level of GICs-08 where we had found a linear cobble/boulder feature containing a small fire pit with flakes of Ramah. At the northern end of this feature were two remarkable artifacts in a deposit of ocher and crushed caribou bones. One was a white quartz celt-like end blade with a concave spoke-shave edge. The other was an ulu or semi-lunar knife flaked from Ramah chert. The linear feature also produced a number of nipple-based points. Formal scrapers were absent. Ethnographic analogy suggests that bone tools are more efficient for removing hair, meat, and membranes because they are less prone to tear or damage the skin.

Research at Kamestastin has concentrated on sites around the lake outlet narrows and in a valley running from the outlet to a lowland area on the south shore. Sites in that area present in markedly different ways, particularly when it comes to lithic material. While almost all of the early sites on the south side of the narrows are dominated by white quartz with only trace amounts of Ramah, GICs-57 and GICs-08 on the north side have prodigious quantities of Ramah chert and sharply reduced amounts of quartz debris and tools. The dates from the east end sites show another

marked division. Although there are more sites with dates around cal. 6700 to 7000 BP than sites dating to cal. 7300 BP without Ramah, the lithic inventory of the latter is restricted to grey chert, high quality purple smoky quartz with the appearance of fine glass, and white quartz. The quartz industry involves a higher proportion of well finished formal tools than at the slightly later sites.



Part of Mistanuk (GICs-08) as it appeared at the end of June 2021. The Mistasuapi component can be seen on the left side of this photograph and the Napanakapeu Component on the right



Hill shaded Lidar image of part of Sheshatshit, showing position of Shukapesh 2 on the highest terrace in the Sheshatshit series. In this image the terraces visible below the Shukapesh 2 site steadily decrease in elevation. Housing platforms, roads and other modern disturbances are visible on the right

The archaeological field season finished at Kamestastin on the first of July, when I returned to Sheshatshit and joined **Scott Neilsen's** crew at FjCa-51, the very large Shashish Innu/Intermediate/ Early Woodland site. Following work there, I moved up to the 33-meter terrace to work at Shukapesh 2 (FjCa-79). The 2020 excavation produced side-notched projectile points, crudely made scrapers and roughly fashioned bifacial ovate knives. All the artefacts are quartzite, though there was some debitage of lightly banded grey rhyolite or chert. Finds were next to a 5.7-meter long linear combustion feature of small to medium sized boulders and fire-cracked rock with a fire pit at its southeastern end, on the rim of which was burned bone identified by Art Spiess as Phoca, probably harbour seal/Inatshuk (*Phoca Vitulina*) or a larger than an average ringed seal (*Phoca Hispida*.) Today harbour seals are not common in western Lake Melville, although those once known to visit or permanently

inhabit Seal and Wuchusk Lakes were almost certainly *P. vitulina*, or perhaps even a sub-species akin to *P. vitulina mellonae*. These freshwater harbour seals are permanent residents of the other Seal Lakes on the Quebec-Labrador peninsula (Les Lacs des Loups Marins), whose waters flow into the Nastapoka River. Removal by the Churchill Falls project of a sizable part of the water volume changed the character of both these lakes visited (or perhaps inhabited) by seals.

As the seal species that today frequent Lake Melville have different habits and behaviours, species identification of the bone at Shukapesh 2 has implications for site interpretation. Though ringed and harbour seals are likely candidates for the Shukapesh 2 finds, local seal hunters recognize a freshwater favouring harbour seal variant which is smaller than regular harbour seals, whose heads are broader and flatter and whose coats are darker than others. Harbour seals are known to ascend salmon rivers and enter inland lakes, sometimes avoiding bad rapids and falls by hauling out and travelling overland to pass these obstructions. The construction of the Churchill Falls Power project is not the only factor that changed the waterways in and around Sheshatshit. Before the effects of ca. 4500 years of isostatic rebound, now combined with reduced freshwater flow brought about by power projects, Sheshatshit would have been a different place hydrographically and environmentally. Where today's community now sits would have been an island with a view across today's narrows to another island. And where North West Point now juts into Lake Melville would have been another island, making the location attractive habitat for seals both in open water and winter seasons.

The sample of cremated bone from beside the larger fire pit at Shukapesh 2 (BETA 584983) gave a date of 4180 +/-30 RCYBP or cal. 4768–4615 cal BP and 4835–4785 cal BP. The calcined bone fragments used for dating were fragmented and unidentifiable, so we don't know whether the dated bone is seal, though a strong possibility exists that it may be.

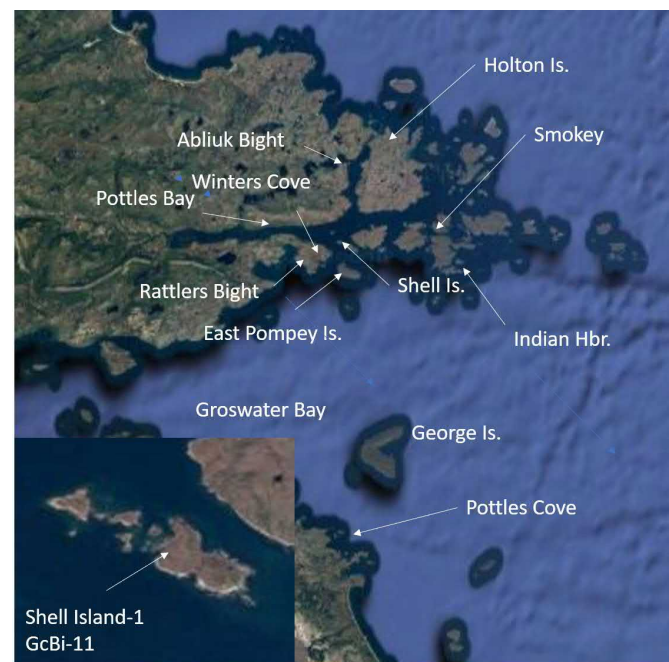
The lithic assemblage from Shukapesh 2 is somewhat similar to Black Island 2 (GcBk-13) and sites on the Quebec Lower North Shore which **Jean-Yves Pinal** places in his Bonne-Espérance Complex. Assuming for the moment that the 4180 +/-30 RCYBP date at Shukapesh 2 is valid, it is interesting to note that the uncalibrated date from Black Island 2 in Groswater Bay (ca. 4200 BP), is essentially the same as the date we obtained on bone from Shukapesh 2. Around the mouth of Aisimeushipu/St Paul's River, Pinal notes the presence of several sites similar to Black Island 2 which he assigns to his Complexe Bonne-Espérance. Pinal suggests that these sites mainly clustered close to St Paul's River and belong to a population with a more interior focus than those of coeval groups defined as Maritime Archaic. The use of what Pinal describes as whitish grey cherts, which he believes are sourced in Newfoundland, is characteristic. He relates these occupations to the populations who produced the Graveyard type points described at sites on the Lower North Shore and on both sides of the Straits of Belle Isle.

SHELL ISLAND: A REDUCTION STATION ON THE RAMAH CHERT TRAIL

By William W. Fitzhugh

Stephen Loring's extensive report on Ramah chert and its distribution throughout the greater Northeast (pp. 169-220 in *Ramah Chert: A Lithic Odyssey*, 2017) got me thinking about an unusual and frustrating site we found in outer Groswater Bay in 1969. Unusual because of the huge amount of Ramah chert debitage, and frustrating because of the absence of diagnostic tools to determine its cultural affiliation. At most sites a test pit usually produces several diagnostic types. In July, 2018, I visited Shell Island again, hoping for better luck.

Shell Island is in the Smokey archipelago in northeastern Groswater Bay. The site is on the largest of a string of low skerries east of Rattler's Bight and Winters Cove and lies at the intersection of Pottles Bay and Abluk Bight. The latter provides calm passage from the open Labrador Sea to the north and Groswater Bay to the south, by-passing the shoals and dangerous water to the east. Sheltered from wind and seas, Shell Island offers a quiet camp with fresh water, ducks, and seals. Heading south from Shell Island, one re-enters open sea conditions for 27 km until reaching shelter at the southeastern entrance of Groswater Bay. This passage is the widest stretch of open ocean that travelers had to navigate along 800 miles of the Labrador coast without a safe harbor.



Groswater Bay on the central Labrador coast, and the location of Shell Island

Shell Island-1 (GsBi-11) is in a small north-facing cove on the largest of the Shell Islands. The beaches and soil consist mostly of deposits of tundra peat underlain by blue mussel (*Mytilus edulis*), soft clam (*Mya arenaria*), and other species. In the early 20th century, the shell deposits were so thick they were commercially mined. GcBi-11 is at the northern end of a broad raised beach between low rock ridges to the east and west. As soon as we stuck a shovel in the ground in 1969, we heard the crunching sound of breaking chert.

Our 1969 excavation was a 2x2m pit in the middle of a tent ring 4m above sea level. The turf and upper peat contained 19-20th century creamware and square nails from the recent tent ring. The crunching was coming from a layer of Ramah chert flakes beneath 30cm of peat. The chert layer produced thousands of Ramah flakes, a couple biface fragments, a piece of ground slate, and a few flakes of brown chert. There were no large Ramah cores or quarry chunks; instead, most of the debitage was biface thinning flakes indicating production of tool preforms. Lacking diagnostic artifacts, we assigned the site to the Daniels Rattle or Point Revenge Ancestral Inuu cultures ca. AD 700–1300 based on its low elevation and exclusive use of Ramah chert (Fitzhugh 1972:102, 1978).

When we returned to Shell Island in 2018, we opened a small area along the edge of the 1969 excavation, hoping to find diagnostic artifacts. As luck would have it, we recovered only more flakes, a ground slate celt fragment, and a Ramah flake scraper. A test pit six meters to the east produced a fragment of tan chert resembling European ballast, and European ceramics in the turf and upper peat, but frozen ground kept us from reaching the deeper Ramah level.

Ramah Chert Studies

In 1968 the location of the Ramah chert quarries in northern Labrador had not been located, although



Shell Island-1 site, view north



Worked slate chunk



A large Ramah flake from our 2018 Shell Island visit

Elmer Harp suspected Ramah Bay as the likely source of what was then called ‘translucent quartzite’. Tony Morse did the first petrographic studies that identified Ramah chert from similar quartzites from Mistassini in Quebec, and Brinex (British Newfoundland Exploration Company) confirmed sources in Ramah Bay. Fieldwork by Michael Gramly and Anne Abraham in 1976 identified the ‘quarry bowl’ on the north side of Ramah Bay as the principal prehistoric quarry, and further studies of the quarry were done by Colleen Lazenby, and later by Newfoundland geologists. Since then, Stephen Loring (2017) has written extensively about the Ramah chert, its cultural and spiritual role in Labrador culture history, and its far-flung distribution in Eastern Canada, the U.S. Northeast, and the Mid-Atlantic coast region. Growing awareness of the importance of Ramah chert in Northeastern North American culture history prompted the Canadian government to designate “Kitjigattalik—the Ramah Chert Quarries” as a National Historic Site in 2014 (Curtis and Desrosiers 2017).

As Loring has documented, in the years since 1969 a large body of data have become available on the southern distribution of Ramah chert. Stemmed and notched points of Ramah have been found throughout Labrador and northern Quebec, in Nova Scotia and New Brunswick, in Maine and other

New England states, and as far south as Maryland, Delaware, and Virginia. Loring reported a Ramah chert fluted point from the Vermont shore of the Champlain Sea. Ramah points have been found in Late Archaic burials and in the Woodland/Ceramic components of the Goddard site in Maine, and a corner-notched Late Woodland style arrow point of Ramah chert was found at a Norse cemetery in Sandness, Greenland. In addition to finds of individual implements, caches of Ramah chert biface blanks have been found at Port au Choix



Ramah chert bifaces from the Stubbert cache at Kegashka on the north shore of the Gulf of St. Lawrence. (credit: W. Richard)



Mary Maisel, Halcyon Brown, Katherine Meier, and Jake Marchman at the 2018 Shell Island-1 dig

in western Newfoundland, at the Spingle site in L'Anse au Chair, near Port Hope Simpson at Alexis Bay in southern Labrador, and at the Stubbert site in Kegashka on the Quebec Lower North Shore (Loring 2017:203-4). Apparently, what is known about the southern distribution of Ramah chert is the proverbial 'tip of the iceberg'. While many individual finds from Maine date to the Late Archaic, ca. 3500–4000 BP, most of the caches date typologically to ca. AD 500–1300. None of the caches have been dated by c14.

In Labrador, Ramah is the dominant lithic material for chipped stone inventories in Late Maritime Archaic (4000–3600 BP) and Daniel Rattle/Point Revenge (Ancestral Innu) (AD 600–1300) sites, and its distribution in southern sites coincides with these periods. Large amounts of Ramah must have been moving south along the Labrador coast to supply this extensive trade network. Caches imply planned

voyages to Ramah quarries, and at least informal supply and demand, middle-men, and prestige value attached to this distinctive material coming from the 'icy north'. At Rattlers Bight, only a few kilometers from Shell Island, 99% of the chipped stone inventory of more than 5000 catalogued artifacts are Ramah chert, and its burials contain both finished points and large, often 'killed', early-stage quarry blanks.

To date Shell Island-1 is the only site on the Labrador coast that could be interpreted as a way-station on the supply side of this vast Ramah distribution network. No other site has such a dense deposit of flaking debris accompanied by an absence of finished bifaces, scrapers, and even utilized flake. Use of Ramah artifacts in domestic contexts, such as seen at nearby sites like Rattlers Bight and Winters Cove, is missing at Shell Island, as are charcoal and faunal remains. Our ancient travelers chipping Ramah at Shell Island may have been taking the time to turn their quarry blocks into lighter, more manageable biface preforms, perhaps while waiting for good weather to cross Groswater Bay. Reducing the weight of their cargo would have been prudent before crossing the mouth of Groswater Bay in open boats, making their voyage safer and their cargo a more marketable commodity to southerners.

LABRADOR RADIOCARBON DATE-LIST UPDATE

By William W. Fitzhugh and Stephen Loring

Our multi-year project preparing the Labrador radiocarbon dating files resulting over fifty years of Smithsonian research in Labrador (1970–2018) for publication is approaching completion. Recent delays resulted from restricted access to our office files by covid lock-downs. Nevertheless, during the past year **Stephen Loring**, **Jake Marchman**, and I formatted and proofed the entries that Jake assembled several years ago from our year-by-year lab report folders, produced during the 1970s by **Robert Stuckenrath**'s SI radiocarbon lab, and later mostly by Beta Analytic. Proofing our site location data this year revealed many discrepancies introduced when GPS data were being transferred from paper maps. So we turned to the magic of Google Earth touch-down, and in the process of zooming revived old memories and obtained pin-point locations. Recognizing that we wanted the final document to be more informative than simply a list, we are adding text descriptions of major cultural groups, photographs of key sites and assemblages, and landscape views. Graphs will show 'space-time' presentations, and maps will present culture distributions. Discussions are currently underway to determine a suitable publication venue for our massive chronology.

CAPTAIN HERENDEEN AND THE HERSCHEL ISLAND PARKA

By John R. Bockstoce¹

In 1887 the Smithsonian acquired a fascinating Inuit parka (NMNH E128407) from **Captain E. P. Herendeen**, recorded as having originated from Herschel Island. **Bernadette Driscoll Engelstad** has identified the parka, which, although made by Siglit, incorporates some Inuinnait stylistic elements “including white caribou chest panels, an elongated tail, and a cone-like appendage on the hood.”² In the early nineteenth century the Siglit people (formerly referred to as “Mackenzie Inuit”) occupied territories surrounding Herschel Island, ranging from Barter Island in Alaska to lands in Canada’s Northwest Territories, including Cape Bathurst and Franklin Bay. To their east the Inuinnait (formerly “Copper Inuit”) lived on the mainland coasts of Amundsen Gulf and Coronation Gulf and throughout Victoria Island.

During the second half of the nineteenth century Edward Perry (“Ned”) Herendeen made more than twenty whaling voyages in the Western Arctic. In 1854 he had been aboard one of the first whaleships to reach Point Barrow. In the 1870s he was employed by the U.S. Coast Survey and other federal agencies in Alaska, and from 1881 to 1883 he served as interpreter at the U.S. Signal Corps station at Point Barrow. He again lived at Point Barrow from 1884 to 1886 as a member of the Pacific Steam Whaling Company’s shore whaling crew. He left in 1886 and did not return to northern Alaska until 1889.

Among the assemblage that the Smithsonian acquired from Herendeen are two items listed as having come from “Cape Bathurst” and two (including the parka) from “Herschel Island.” Herschel Island lies approximately 400 miles (640 km) east of Point Barrow, on the coast of what is now the Yukon Territory of Canada, and Cape Bathurst is another 235 miles (380 km) farther east, in the Northwest Territories (Nunavut).

How did Ned Herendeen acquire these items? In the 1880s it is unlikely that he had gone very far beyond the Point Barrow area. For most of the nineteenth century the Alaskan coastal lands from east of the Colville River to Barter Island were only occasionally visited by Inupiat

and Gwich’in, and after the conclusion of the Franklin Search expeditions in 1854 no foreigners are known to have traveled any great distance along Alaska’s north coast. The whaling fleet comprised the next major external intrusion, but in the late 1870s and early 1880s it had only begun to probe into the Beaufort Sea.

Trade between the Alaskan and Canadian Inuit groups had, nevertheless, been underway for centuries, and one point of exchange was via a trade rendezvous near Barter Island. There, among other items, Inuinnait soapstone lamps and cooking pots were traded onward by the Siglit to the Inupiat of northern Alaska. These exchanges were, however, usually conducted in an air of mutual suspicion and hostility. “The Herschel Islanders [Siglit] had a very bad reputation for dishonesty and even treachery among the [Inupiat] traders from Point Barrow,” wrote the explorer-ethnographer **Vilhjalmur Stefansson**.



In any case, relations between the groups must have improved because it was reported that about 1880 an enterprising group of Inupiat from the Point Barrow area undertook a unique “venturesome journey” by umiaq

“on what may be called a voyage of exploration” along the Beaufort Sea coast to Herschel Island and beyond. This group wintered safely in the Mackenzie delta, then moved onward to Cape Bathurst, where one of them took a wife before the party returned home. Stefansson, who recorded this information in 1906, noted that their journey opened trading links between the two peoples.³ It is possible that one of those Inupiat voyagers sold the parka to Ned Herendeen at Point Barrow.

Ned Herendeen arrived back in northern Alaska in 1889, serving as first mate aboard the small schooner *Nicoline* in a joint whaling venture with his brother, Captain **Lewis N. Herendeen**. The brothers had planned a pioneering voyage to reach Herschel Island before freeze up, but ice forced them to overwinter just east of Point Barrow. Only in 1890 did they reach Herschel Island, where they were surprised to be joined for the winter of 1890–1891 by two whaleships from San Francisco.

But unfortunately for the Herendeen brothers, by 1891 the *Nicoline* had run very short of provisions. They failed to take any whales and were forced to abandon

their venture and return to San Francisco.⁴ Although the two other whaleships enjoyed extraordinary success, the Herendeen brothers lost their investment. With **William Healey Dall**'s help, Ned Herendeen became a security guard at the U.S. National Museum.⁵

As **David A. Morrison** has stated, "By the historic period, and despite some continued trade, the Mackenzie [Siglit] and Copper [Inuinnait] Inuit were probably the most dissimilar neighboring pair of [Inuit] regional groups." Bernadette Driscoll Engelstad explains that the Inuinnait design elements in the Herschel Island parka may have served "as a comic device, suggesting that the parka was used as a costume in [Siglit] festivities, parodying the parka style of the Inuinnait" to the east.⁶

Sadly, the easternmost Siglit society, the Iglulualumiut, which occupied the area east of Cape Bathurst, was eliminated by epidemic disease and starvation in the mid-nineteenth century,⁷ severing the trade link with their neighbors. The Siglit, along with recent Inupiat immigrants from Alaska, were steeply reduced by epidemics in 1900 and 1902, numbering only 400 in 1924.⁸ Today they collectively refer to themselves as Inuvialuit.

¹ I thank **Igor Krupnik, Shepard Krech, Craig George,** and Bernadette D. Engelstad for comments and suggestions.

² Engelstad, B.D. 2020. Inuvialuit delegation visits Smithsonian Collections, *ASC Newsletter* 27, pp. 55-56.

³ Stefansson, Vilhjalmur. 1919. Anthropological Papers of the American Museum of Natural History, Vol. 14, *Stefansson-Anderson Arctic Expedition*, New York, pp. 172-173, 183-184, 194-195, 366.

⁴ Bockstoce, John R. 1986. *Whales, Ice and Men. The History of Commercial Whaling in the Western Arctic*. Seattle, University of Washington Press, pp. 255-262.

⁵ Note added by B. Driscoll Engelstad: From my earlier research, it seems Herendeen served as a security guard at NMNH. In addition to artifacts, Herendeen donated numerous bird specimens to SI, as well as a compilation of Inuit vocabulary, thereby apparently gaining Dall's respect and assistance. I was in touch with his grandson (great-grandson?) some years ago.

⁶ BDE comment: As noted above, the conical appendage on the hood may be a reference to the upright loon beak, typically attached to Inuinnait dance hats. In this regard, the garment may have been used in a shamanistic context, as incorporating 'foreign' design elements in shamanistic clothing can also suggest spiritual power.

⁷ Morrison, David A. 1990. *Iglulualumiut Prehistory: The Lost Inuit of Franklin Bay*. Hull, Quebec, Canadian Museum of Civilization, Archaeological Survey of Canada, Mercury Series Paper 142, pp. 108-109, 117-119.

⁸ Rasmussen, Knud. 1942. The Mackenzie Eskimos (H. Osterman, ed.), *Report of the Fifth Thule Expedition*, vol. 10(2):49. Copenhagen, Nordisk Forlag.

PRESERVING MONGOLIA'S PAST

By *Bayarsaikhan Jamsranjav*

Soon after being hired for my first job at the National Museum of Mongolia in 2003, I had the opportunity to work with the Smithsonian's **William Fitzhugh** and **Idshinnorov Sanduijav**, then director of the National Museum of Mongolia. Both played a crucial role in my becoming an archaeologist and learning my skills in the field. Actually, I was more interested in biography than archaeology when I was an undergraduate student. I had no thought of studying deer stones or any other field of archaeology before becoming a member of the National Museum. In the summer of 2003, the Joint American and Mongolian Deer Stone project led by Fitzhugh began, and I joined as an assistant researcher.

I immediately fell into deer stone research. The artistic, scenic, and mysterious deer stones captivated my attention. Since then, I have nearly 20 years behind me, got my doctorate in 2016 on deer stone studies, and published my dissertation in Mongolian in 2017. It was not the first Mongolian book to research questions about deer stone art and culture. Although it allowed Mongolian readers to access my years of research, English readers have been excluded. So I discussed the idea of translating the book into English with Dr. Fitzhugh, who accepted, supported, and edited my book, which will be published this year in the United States.

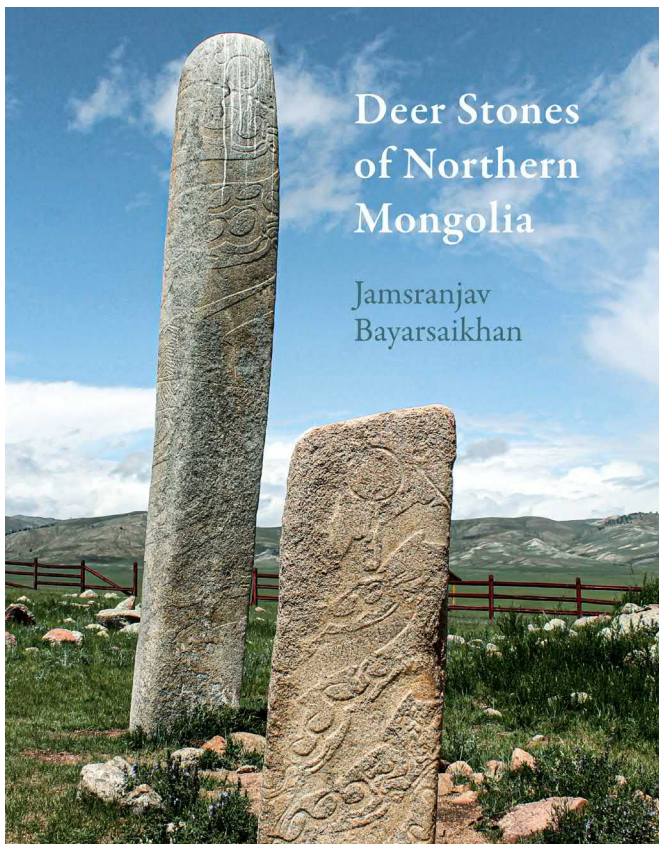
I have experienced both happiness and sadness as an archaeologist. Despite admiring the wonderful historical and cultural monuments of my country, I also



Jamsranjav Bayarsaikhan with his wife Ganjiguur Dorj, elder son Khushlen Bayarsaikhan, middle son Tergel Bayarsaikhan, and youngest son Temuijin Bayarsaikhan

witnessed the loss of countless cultural heritages. The vast territory, sparse population, and mobile life of our country limited our ability to monitor, protect, register, and study cultural heritage.

In order to develop stronger preservation policy in the future, it is important to register and document archaeological heritage and assess the current situation as soon as possible. For a long time we have been trying to work with the Smithsonian and an international team of scientists to come up with a clear initiative. As a result, in collaboration with scientists from the Max Planck Institute for the Science of Human History in Germany, a proposal was developed for registering and documenting Mongolian archeological sites using remote sensing, on-site exploration, archival sources, and identification of endangered sites. The proposal was supported and funded by the Arcadia Foundation. The project, called the Mongolian Archaeological Project: Surveying the Steppes (MAPSS), will run for five years, and several experts are working together on what is turning out to be a massive data project. I hope its results will help us manage and protect our cultural heritage generally, and especially our archaeological monuments.

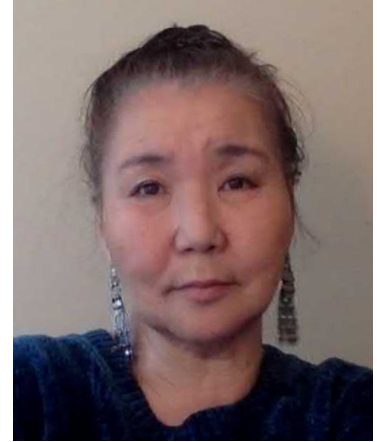


Deer Stones of Northern Mongolia by *Jamsranjav Bayarsaikhan* book's cover

CLIMATE CHANGE IN OYMYAKON: PERCEPTIONS, RESPONSES, AND HOW LOCAL KNOWLEDGE CAN INFORM POLICY

By *Vera Solovyeva*

My research explores how Indigenous people of the Russian North perceive, understand, and respond to climate change in the coldest inhabited region on Earth—the Oymyakon ulus (district) of the Republic of Sakha (Yakutia), Russia. In my study,



I followed diverse threads, including weather and seasonal calendars, sharing of oral tradition, cultural values, subsistence practices and livelihoods, adaptation strategies, and others, to produce a coherent perspective on contemporary life of Indigenous people, the Sakha and the Even, in the Oymyakon ulus.

I selected climate change in the Oymyakon ulus because I had worked there some 35 years ago, during my field research, beginning in 1985, while pursuing a bachelor's degree in biology from Yakut State University. The Yakut Institute of Biology had a research station there, merely a small campground by the mountains made of a few “heavy canvas” tents and a small wooden cabin, where we kept our food to protect it from the roaming bears. My work was to collect and study plants on which the Northern pika (*Ochotona hyperborea*) feed. That summer, I met the Even reindeer herders for the first time when they came to our camp riding white reindeer. I remember how they suddenly appeared from the forest, which had already turned to golden yellow colors. After a short conversation, they left, but they returned the next day and brought some meat to share, following their *nimat* (sharing) tradition.

Already in 1985, climate change was quite visible. We witnessed ‘strange’ weather events, still of small-scale but the harbingers of significant shifts, like rapid temperature fluctuations, unusual wind gusts, and stronger than usual rainstorms. Indigenous people already noticed these changes by the time of my first fieldwork. Today, they eagerly report how they have to adjust their livelihoods and subsistence practices, as they have done over centuries. However, the scale

of oscillations has become far more prominent over time; and in the next 100 years, climate change in the Arctic is expected to accelerate, contributing to major physical, ecological, social, and economic disruptions; many have already started. This will produce significant impacts, and most of these are likely to be negative. While scientists acknowledge that global climate change represents a threat to the humanity, Indigenous communities are among the most vulnerable groups because they depend on renewable natural resources. Indeed, Indigenous people in the Oymyakon area see climate change not only as a physical shift in the environment but as a force that affects their livelihood, history, traditions, and their future.

Changes in weather and environment have shaken the very foundations of the Sakha and Even communities in the Oymyakon ulus, affecting their food security, use of resources, storage and sheltering practices. According to people's observations, the weather became unpredictable, summers are colder, winters are milder, and the land is constantly changing, swelling in some places and collapsing in others because of the permafrost thawing. Floods happen more often, submerging houses and hayfields. More wolves and bears are being seen, so that it is more challenging to care for horses, cattle, and reindeer. Massive forest fires in the summers of 2020 and 2021 contributed to increasing vulnerability of Indigenous communities.

While traditional knowledge systems, values, and community networks of sharing food and resources are all valued sources that help Indigenous people manage the negative outcomes of climate change, support from government agencies is crucial in mitigating the impact of climate change. Increased resilience and social justice are to be the most important pillars of policies to be adopted by larger society. Adaptation strategies should be transparent and inclusive, with the full participation of local communities, and they should rely on an ecosystem-based approach. As widely accepted in other areas, Indigenous people need to be included in climate change dialog, and social scientists should advocate for, and strive to empower, Indigenous people and their bottom-up contributions to sustainable living that benefit their communities and future generations. Such an applied approach to climate change research is a way of going beyond simply collecting data from or in Indigenous communities and beyond the boundaries of established academic guidelines. My dissertation research and fieldwork in the Oymyakon district in 2015–2016 was conducted with the support from the U.S. National Science Foundation (Award #1439468).

COLLECTIONS

THE LOST SKULL FROM UNGAVA

By Stephen Loring and Susan Lofthouse

There is a belief, surprisingly far-flung and deeply embedded, that almost everything that is lost somehow ends up at the Smithsonian. Having spent nearly fifty years poking into the dusty corners of the Natural History Museum attic, hallways, and basement, I can appreciate the sentiment, if not vouch for its veracity. And that's just in the Natural History building. When multiplied by 21—the number of museums in the Institution—the validity of its sobriquet as “The Nations Attic” is more readily apparent and, perhaps, justified. With such a broad expanse and reach, there is a pretty constant trickle of inquiries about all manner of things. And when those things pertain to The North they almost invariably end up in our ASC offices. And just one such was the inquiry we received from Susan Lofthouse, an archaeologist at the Avataq Cultural Institute, on March 11th of this year. Her email contained the intriguing subject heading: Trying to Track Down a Skull Dug Up by **Thomas Lee!**

Created in 1980, Avataq Cultural Institute is a non-profit Inuit organization mandated to conserve the cultural heritage of Nunavimmiut (Inuit of northern Quebec). The archaeology department was created in 1985 and has conducted countless excavations, field schools, surveys, and a range of educational activities for nearly 40 years. Archaeological activities in Nunavik extend as far back as the 1930s. Needless to say, research objectives and guidelines have changed a great deal during that time. The result is that archaeological materials, including human remains, recovered from Nunavik are located in disparate collections across North America and Europe.

Repatriation of these materials is a huge undertaking and requires substantial resources. Avataq's approach is to begin with the more pressing need for the recovery of human remains. The objective is to gather these remains as comprehensively and efficiently as possible and return them to their original resting places. In the case of bones that were removed through archaeological excavation, the field plans and photographs provide a guide for locating the graves. Such a repatriation was undertaken in 2018 between Avataq and Dartmouth College, facilitated by **William Fitzhugh** of the Smithsonian and **Deborah Nichols** of Dartmouth. The remains of six individuals that had been collected by **Elmer Harp** from two graves south of Richmond Gulf in 1967 were turned over to Avataq. A team from Avataq, led by president **Josepi Padlayat**

and Executive Director **Rhoda Kokkiapik**, travelled to Dartmouth and received the skeletons which had been previously described by the Smithsonian's physical anthropologist, **Bruno Frolich** who at the time had also been teaching at Dartmouth. The following summer, the remains were returned to their original graves by Avataq's head archaeologist **Tommy Weetaluktuk**.

Lofthouse's email inquiry of March 11th concerned yet another incident where human remains had been removed from Nunavut, in this case by **Thomas Lee**, an archaeologist from Laval University, in the early-1960's. There were probably no other professional archaeologists of his era as adamant, obstreperous, confrontational, and obdurate as Lee. His career is strewn with sensational claims, from excavations at Sheguiandah in Ontario purporting to be almost 30,000 years old, to finding a lost Norse colony in Ungava, all of which have been disproved. The almost universal rejection of his interpretations was such that Lee, argumentative to the last, perceived himself the victim of an insidious attack by professional archaeologists led, he believed, by the University of Michigan's **James B. Griffin**, who Lee thought were jealous of his discoveries and determined to disparage his reputation.

In conjunction with his research in Ungava, Thomas Lee in 1966 removed human remains from several graves discovered on Pamiok Island in the Arnaud Estuary near the Inuit village of Kangirsuk. Lee was obsessed with identifying a Norse presence in Nunavik, to the degree that he reconstructed a nearby pre-Inuit Dorset longhouse to conform with Norse style. He insisted that at least one of the skulls he collected displayed "European traits". Seeking confirmation of this belief, Lee arranged to have the human remains brought to **Carlton Coon**, a prominent physical anthropologist associated with the Peabody Museum at Harvard University. Eventually most, perhaps all, of the bones were returned to Laval University, except for a missing skull. Hoping to track it down, Avataq contacted the Peabody Museum, where the paper trail ends in the 1970s, and the Smithsonian Institution, where Coon also had ties, with the hope that the missing skull might be found. [Editor's note: A photo of the skull Lee thought looked most European, from Tomb 1, is illustrated as Fig. 43 and discussed on p.126 in Lee's 1968 monograph.]

Bill Fitzhugh and I were surprised to receive Susan's inquiry as to whether Lee's Ungava skull might have somehow found its way to the Smithsonian. Given our familiarity with the Institution's Arctic collections (together we have over 85 years combined curatorial insight) we doubted very much that even despite the avaricious skull collecting of earlier times (the Smithsonian's "bone doctor" Aleš Hrdlicka comes to

mind), it was improbable that the Ungava specimen might have made its way to Washington. However, as the Smithsonian's National Anthropological Archives (NAA) contain the papers of Carleton Coon, we wondered if there might be any surviving correspondence between Coon and Lee that might shed light on the mystery.

Here is the report of that investigation. A quick trip out to the Smithsonian's NAA to look through the papers of Carleton Coon (1904–1981), a noted physical anthropologist from the universities of Pennsylvania and Harvard, revealed a limited correspondence between Coon and Thomas Lee. Apparently, after meeting at a professional conference, Lee accepts an invitation to travel to Gloucester, Massachusetts (Coon's retirement home) bringing with him 5 (elsewhere 6) skulls from Pamiok and other sites in Ungava.

*Letter from T. Lee to C. Coon, 27 April 1971, thanking Coon for his hospitality and for his opinion about the skulls. Based on their appearance, Coon feels that some of the Ungava skulls appear to be more "European" than "Eskimo", but he defers to his colleague, Dr. **William Howells** (1908–2005), a physical anthropologist at Harvard, who had perfected a mathematical method (craniometrics) for determining racial identities.*

Figure 1. Coon letter to Lee on 28 April 1971

Figure 2. Draft of a letter from C. Coon to T. Lee, 1 May 1971 stating that W. Howells visited him and took the skulls

Letter from C. Coon to T. Lee, 28 April 1971: Dr. Howells coming to Gloucester, Massachusetts to pick-up the skulls. Coon transfers the Ungava skulls to Howells who takes them to his office at Harvard's Peabody Museum. (Figs.1 and 2)

Three years go by with no word from Coon or Howells about the racial determination of the Ungava human remains. By this time Lee is firmly convinced that he has discovered evidence of a Norse presence in Ungava and is expecting to get confirmation from physical

anthropologists. As subsequent correspondence attests, Lee's predisposition to paranoia and the belief that—whether out of ignorance or professional jealousy—much of the archaeological profession was out to discredit him and refute his Norse attribution.

About the skulls, Carl, I'm deeply concerned. It is just about three years since you turned them over to Howells. If they were just routine skulls, I might accept it. But if they are as I think, and as your obvious enthusiasm seemed to amply suggest, they should have been examined by now, even by the best of men. I know you will not agree, but I sense the hand of Griffin in this (wellness).

Figure 3. Letter from T. Lee to C. Coon, 27 February 1974.

Lee is incredulous that he hasn't heard anything from Howells and begins to fear professional hanky-panky

And still no news from Harvard....

and enjoying your examples of... It is now 3 1/2 years since you turned over my Ungava skulls to Howells. I know they are important. You know it too. There is skull digging somewhere in the background, and I can smell Jimmie Griffin in it.

Figure 4. Letter from Lee to Coon, 6 December 1974 lamenting the passing of time with no analysis forthcoming

Letter from C. Coon to T. Lee, 17 December 1974.

Coon will be attending Howell's retirement party that evening and will endeavor to get the matter of the Ungava skulls taken care of.

True to his word, Coon speaks with **Stephen Williams**, the Director of Harvard's Peabody Museum, which housed the Anthropology Department where Howell's had worked, and with **Jonathan Friedlander**, a young physical anthropologist who promises to look into the matter of the skulls that Lee had entrusted to Howells:

Now I am trying again. I have spoken about you and your work with both Steve Williams and Jonathan Friedlander (who now runs the bone lab), and both stated that work would begin on your skulls. Jonathan had never heard of you before; Steve knows your entire history, and is NOT Giffinized at all, he consider it possible that you, and I may be right. Anyway, I have been promised action at last.

Figure 5. Letter from C. Coon to T. Lee, 27 February 1975. Skulls still at Harvard's Peabody Museum

And finally! Confirmation of a professional assessment of the racial affinities of the Ungava human remains.

Dear Carl:

As you will see from the inclosure, it has been decided at Peabody that the Ungava skulls are Eskimo. This will please large numbers of the Establishment and help them discredit all of my discoveries up there.

You know perfectly well, Carl, that these are NOT Eskimo skulls. You thought so before you saw them, you knew when you saw them, and you were certain after you made your measurements and calculations.

Fig. 6. Letter from T. Lee to C. Coon, 9 May 1975 in which he acknowledges receiving notice from Harvard (presumably from Friedlander) that the skulls are determined to be "Eskimo". Sadly, the referenced "inclosure" is not with the NAA Coon papers

There is a final letter from T. Lee to C. Coon dated 17 June 1975 which basically rejects the assessment of the Harvard physical anthropologist before making a long divergence into a discussion of the rune stones that **Barry Fell** had recently publicized, lending credence to Lee's assumption of a Norse presence in Ungava. Sadly, there is no reference to the fate of the skeletal material or a copy of any communications discussing the research results. This ends the Coon-Lee correspondence at the NAA. About all we can say from this is that the Ungava human remains collected by Thomas Lee were at Harvard's Peabody Museum in Cambridge in the spring of 1975. What became of them thereafter is still a mystery.

As archaeologists, we are crass materialists; we have an abiding (alas, sometimes misplaced) faith in the persistence of material objects, and while we haven't resolved the fate of the missing Pamiok skull, perhaps this story might yet be an impetus leading to its re-emergence and subsequent return to its former place of rest. Human skeletons are tucked away in institutional collections around the world, relics from a time when grave digging/robbing was an acceptable component of archaeological research. These remains are restless, their presence has become an embarrassment, such that museums, government agencies, and institutions are reaching out to indigenous organizations and communities to rectify past wrongs.

This summer Avataq hopes to deliver the human remains repatriated from Laval to their original resting place overlooking the waters of Ungava Bay.

[For related readings see Lee's account of his discovery and excavations at Pamiok including photographs of the human remains and the missing skull are in his 1967 monograph, *Archaeological Discoveries, Payne Bay Region, Ungava*, 1966 (Centre d'Etudes Nordiques, Travaux et Documents 20). See also, Daniel Gendron, 2015, On the "Viking" Presence in Nunavik: Much Ado About Nothing! *Etudes/Inuit/Studies* 39(2):285-293, and Patrick Plumet, "Les maisons longues dorsétiennes de l'Ungava." *Geographie Physique et Quaternaire* (1982), p. 253]



A Dorset longhouse discovered by Lee, who thought it was Norse and reconstructed to support his theory

BUILDING BIRCH BARK CANOES IN SIBERIA

By Artem Lemberg (translated by Gaby Triess and edited by Claire Chi and W. Fitzhugh)

I grew up in a little village located in the middle of the Siberian Taiga near the River Kasyr. The upheavals and unrest of the early 90s made my parents leave the city in exchange for a secluded, humble life there. My childhood and youth were shaped by simple life in the village. Soon, I discovered a passion for woodworking. I carved wood, built models of houses and ships, and when I wanted to learn to play the guitar, my father and I repaired an old guitar. When I was 15, I moved to Krasnoyarsk, a large city in Siberia, to earn my living as a carpenter. It was an exciting time for me; I made lots of new friends, played music, was out on the town at night, and built roofs during the day. However, the hard work in temperatures of up to -40 degrees Celsius (-72 Fahrenheit) and the bad air took its toll on me. A few years into the job, I caught a severe case of pneumonia that I was lucky enough to survive. I realized that I wasn't happy working with cheap and low-quality materials, which were harmful to the health of the people living in the houses we built. At the same time I became inspired by some of my oldest friends and started questioning the habits of our society, our relationships with resources, the production and quality of our everyday objects, and the resulting effects on the environment.

I felt it was time for change. I met a German guy who led a youth club in Germany and was running international wilderness and adventure projects for young adults in Siberia. We clicked immediately and I started working with him. My German improved quickly as I studied a lot and ended up spending two years in Germany. That's where I made an encounter that would profoundly change my life. I was invited to take part in a workshop organized by a boat builder named André Rissler. He told me about canoes made from birch bark that used to be produced in the region where I came from. I started exploring the topic and I could not stop thinking about it. I knew that birch bark had been used for the production of storage containers, buckets, bags, and floats for fishing nets—but canoes?



A modern Siberian dugout canoe



My first birch bark canoe construction in Siberia

Back in Siberia, I collected all the information I could get my hands on. I read books, watched video clips, and interviewed older people to pick their brains. But the elders in my village only remembered seeing dugout canoes made from a hollowed-out tree during their childhood on the River Kasyr, and none used the bark of birch trees. The River Kasyr flows into the River Yenisey, where birch bark canoes used to be used in the past (Luukkanen, Fitzhugh, 2020, p.115). It was not until many years later when a friend and I came across people from another region who were able to tell us more about the lost art of building Siberian birch bark canoes.

For the time being, I stuck to building traditional dugouts. However, the time would come for me to try my hand at my first birch bark canoe. The season for harvesting bark from birch trees was approaching in July, so two friends and I packed our bags. With nothing but a few manual tools, a tarp, and a big pot, we made our way to the Taiga in search of a suitable area. We set up camp at a spot near the river in a mixed forest with plenty of birch trees. The next few weeks were incredibly intense. We lived in our tent, and every minute when we weren't eating or sleeping was spent building our birch bark canoe. Since we barely had any information about Siberian birch bark canoes, we followed sources from Northern America and Canada. We had no idea that the northern white cedar (*Thuja occidentalis*), often used in America and Canada, is actually a completely different type of tree from the tree we knew as simply cedar (*Pinus sibirica*) in Siberia

(Adney, Chappelle 1983:17). Luckily, this tree turned out to be rather useful for the production of ribs, sheathing, and gunwales. The particular tree we felled had a terrible twisted grain and was difficult to split, making the task very laborious. However, it was all worth it in the end; three weeks later, we left the taiga in our very own birch bark canoe.

In the following years, I built many more birch bark canoes based on the American and Canadian models. While I could use resources from those two regions to teach myself the artisanal skills necessary, the choice of suitable materials was something I could only approach through trial and error. I spent weeks in the woods, observing and analyzing trees.

As mentioned, we discovered by chance that the Siberian pine (*Pinus sibirica*) is well suited for building birch bark canoe frames. Siberian spruce (*Picea obovata*) is also excellent, as it is slightly lighter than Siberian pine. Its roots are suitable for sewing the bark, just like the roots of other types of spruce. Not only is the type of tree critical, but its growth is also of major importance. The greatest challenge was assessing the tree before felling it. It would be a huge waste to fell a tree that took many years to grow without being able to actually use it. Ideally, the tree should have as little twisted growth and as few branches at the trunk as possible. With Siberian spruce trees and Siberian pine trees, this demands an expert eye, as the root flares at the trunk are not always pronounced, making the amount of twist hard to see.

Given that the wooden parts for the birch bark canoe are being split by hand rather than sawn, trees with narrower annual rings produce more stable and light parts. The slower a tree grows, the narrower its annual rings. Having grown up in a family of musicians worked in my favour here. After many attempts, I realized that tapping on the bark of the tree and hearing the resulting pitch of the sound helped me make a conclusion about its growth. A high pitched sound means the wood has a high density. From this, I was able to tell that the tree had grown slowly and had narrow annual rings. The location and direction of the wind are also important factors when choosing a tree.

Another challenge I encountered was finding the right type of birch tree. Where I come from south of Krasnoyarsk, there are many different types of birch, but not all are suited for building canoes. For instance, birch that is used for weaving bags or containers is not ideal for making canoes. At first sight, the bark is wonderfully elastic and stable. What makes it so perfect for basket weaving is that it's easily split. However, when this birch is used for making canoes, it creates blisters and makes the canoe prone to damage. Another type of birch I experimented with seemed to have stable bark at first, but when I looked closer, I could see that the grain was growing through the different layers,

making it more susceptible to tears and leaks. The best type of local birch has thick, stable bark without knotted grain and is hard to split. Paper birch trees (*Betula papyrifera*) only exist in Northern America, but I have seen trees in Siberia that are similar, though I have not been able to identify the exact species yet.

When deciding on the right time for harvest, I consult with the local folks who make containers and bags using bark. The first weeks of July, when the flow of sap is slowing down, is the best time to harvest this species in my region. The exact point in time depends on the weather and location; even just a few miles can make a significant difference.



Finishing canoe lashings in my workshop



My latest project: An American Indian canoe built from Tappan Adley's design drawings

For the last few years, I've been living with my wife in Germany, where we run a small workshop for birch bark canoes. A little while ago, I received a note from a member of the Anishinaabe, a group of indigenous peoples native to the Great Lakes region in Northern America. He was very upset that I was building birch bark canoes modeled on the American and Canadian style and accused me of cultural appropriation. There was so much anger and pain in his writing that I was taken aback. Was I doing something wrong? Was I taking something away from others? It was not his fury that gave my work a new sense of direction towards my own people's culture, but a quote from Marcel Labelle, a maker of birch bark canoes, whom he mentioned.

“According to Labelle, the skin of the human body is represented by the birch bark on the canoe. The muscles are represented by cedar sheathing. The ribs and sternum are represented by the spruce cross pieces. The tendons that hold things together are the spruce roots, and the blood that flows and holds everything together is the spruce gum. ‘The blueprint for the canoe is our body. The passengers represent the spirit. A birch bark canoe represents our connection and dependence on Mother Earth,’ he says” (MacColl, 2011).

This quote really touched me and brought a plethora of new questions and thoughts. If the blueprint is contained in the human body, it is within me, too. But

what is my individual blueprint? My parents identified as Soviet citizens and no one was really interested in where exactly we came from. All I know is that my ancestors came from several Siberian regions, with my paternal grandmother being Tatar, but all traces beyond the generation before her had been lost. How did the ‘blueprint’ of the people in my home region manifest itself? If you consider this ‘blueprint of the inner workings’ a holistic construct, then it goes beyond just the body, I think, and contains everything that makes up culture. But it’s also the individual personality of each person building the canoe that influences the work. How should I conduct my quest for the birch bark canoes of my region in a way that all these aspects are considered?

After spending lots of time studying suitable materials in Siberia, the types of local canoes from my region became more important to my current work. I began to study the cultures and birch bark canoes of Siberian people. The more I studied the topic, the more my passion grew to take on this new challenge. Slowly, a plan began to emerge. I am going to return to my home country in search of the birch bark canoes of Siberia. For this reason, I bought a plot of land in the region of Krasnoyarsk. I will set up a workshop there, which I will use as a base to travel around the country, bit by bit, to find existing canoes and people who can tell me about them.

Based on the size of Siberia and the vast number of tribes who used to build birch bark canoes, I am fully aware that this is going to be a lifelong commitment. I want to find the birch bark canoes that are still in existence and analyze them thoroughly to see what techniques and materials were used. I would also like to get in contact with the respective local people to involve them in this project. I am hopeful that I’ll be able to reconstruct the various types of canoes of the region and build smaller, accurate models before tackling canoes in original size.

I see the disappearance of birch bark canoes from the rivers of Siberia as a huge cultural loss. My biggest dream is to bring back the birch bark canoe to where I’m from. I dream of setting up a workshop and a school on my land, where people from Siberia and all over the world can re-learn the old methods of building Siberian birch bark canoes. They will experience what it is like to create something unique with their own hands, using ancient techniques that connect them to past generations and to the nature around them. This is not only completely sustainable; it also helps them detach from the stressful lifestyle of living in the north.

This project will require many people’s involvement along with their knowledge and financial help. I am currently in the process of creating a non-profit association in order to, with the help of the community,

turn this special cultural asset back into a common good of the Siberian people.

Luukkanen, Harri, and William W. Fitzhugh. 2020. *The Bark Canoes and Skin Boats of Northern Eurasia*. Washington DC: Smithsonian Books.

Adney, Edwin Tappan, and Howard I. Chappelle. 1983. *The Bark Canoes and Skin Boats of North America*. Washington DC: Smithsonian Institution Press.

MacColl, Lisa. 2011. Building Cultural Bridges. *Grand Magazine*.

A JAPANESE MYSTERY OBJECT SOLVED BY TEAM EFFORT

By Aubrey MacKenzie

[Editor's note: The Smithsonian receives hundreds of communications from the public asking curators to identify unknown objects. Aubrey's 'what is it?' inquiry piqued my interest because of its similarity to Siberian Nenets reindeer training bridles and grew into a fascinating piece of material culture research.]

I didn’t know what it was. But I wanted to find out. Over the past eleven months, it took the efforts of people in ten countries and four continents, plus a stroke of luck, to figure out what my grandfather and I had found. Shortly after dinner in January 2021, my grandpa called to tell me about an auction listing on Yahoo! Japan Auctions, Japan’s largest online auction platform. Throughout his life my grandpa has been an avid antique collector, and for the last year he had been teaching me about Japanese folk art called mingei. In return, I was teaching him how to use the internet to find antiques all over the world. He was a quick learner.

The auction was for a carved bone, roughly 21 centimeters in length, with a heavy patina from years of use. It had two holes carved in the middle and open holes at both ends. The piece was decorated with crosshatching and a simple motif in the middle, consisting of one central dot connected to six outer dots via straight lines.

The seller noted the object was of Ainu origin (Japan’s indigenous group), but it didn’t look like anything I had seen while researching the Ainu, and the Ainu are not especially known for fashioning tools from bone—they typically use wood. My grandfather and I were the only ones to bid on the item. We began to ponder its function even before the object arrived. Our first guess was that it was some sort of perforated baton, a tool used to straighten arrows, or perhaps to throw arrow-darts. My grandfather recalled seeing similar objects in museum collections.

When the item arrived, we had to revise our hypothesis. From its appearance, it was not as old as perforated batons we saw in research databases, and the wear between the two middle holes could only have been caused by a significant amount of friction. We now guessed it was either a toggle, possibly used to pull a seal, or perhaps a tool used to make twisted-strand rope. We purchased a few books on Bering Strait cultures where such tools might be found but couldn't make any matches.

I decided to change my research approach. Over the next several months I contacted academics, museum curators, and antique collectors. None had seen anything like the peculiar object. Anytime friends visited, I asked them to hypothesize about the object's function. Guesses ranged from fire-starting implement to a bottle opener. It was a backwards treasure hunt; the object was in front of me, I just couldn't figure it out. What it was.

In December of 2021, just as my research efforts were losing momentum, I got a lucky break. I received another call from my grandpa, telling me about a new auction. I logged onto my computer and could hardly believe it: in the picture was not one, but two mysterious bone items connected by a woven piece of cloth. In the center were the same two holes and similar dot motifs. We purchased the item, and I expedited the shipping to continue the research.

With this new item, I retraced my steps, soliciting insight from people who had seen the first bone item. This time, my network lit up with answers. Most people I asked said the same thing: the object in my possession was a horse bridle. I googled Japanese horse bridles. It didn't take long to make a near match with a 19th century drawing from Okinawa.

William Fitzhugh, the Ainu expert at the Smithsonian referred me to **William Taylor**, an assistant professor and curator of archaeology at the University of Colorado. He explained that this was like a type of bitless bridle called a hackamore. Hackamores have early origins, going back to about 4,000 BC, and have shown up in a variety of cultures.

Like the seller in the first auction, the seller in the second auction also claimed this object was of Ainu origin. Still skeptical, I decided to investigate. In William Fitzhugh's *Ainu, Spirit of a Northern People*, the most comprehensive English text on the history of the Ainu (my grandpa and I call it *The Bible*), horses are seldom mentioned, and never in the context of the Ainu riding them. But I did stumble across one source that lends credibility to the Ainu hypothesis, **A.H. Savage Landor's** 1893 work *Alone with the Hairy Ainu* [an egregious title-ed.]. In his travels he remarks that the Ainu method for directing a horse is "as simple as it is ingenious". On page 111, Landor writes:



The mystery bone item my grandfather found in Japan. Note the wear between the two center holes in the middle image



The second mystery bone item

"The necessary "bit" by which we control our horses is dispensed with, and it is replaced by two wooden wands about twelve inches long and two inches wide, tied together at one end, allowing a distance of three inches between them. In the middle of these wands a rope is passed which goes over the pony's head behind its ears; while the wands themselves, thus supported by it, rest one on each side of the pony's nose. Another rope, five or six feet in length, and acting as a rein, is fastened at the lower end of one of the wands, and passes through a hole in the other, thus allowing this simple contrivance, based on the lever principle, to be worked exactly in the same way as a nut-cracker, the pony's nose being the nut."

While Landor's description doesn't perfectly match the objects I have, it supports that the Ainu did ride horses and used a bitless bridle similar in size and shape to mine. Curiously, the two bridles in my possession are not made from the same type of bone, according to anatomists at



Okinawan Horse bit "Muge"
from the book *Ryukyu Fuzoku*
Ezu

the University of Washington. The first bone is an ulna, indicated by the trochlear notch (the C-shape depression) near one end. The second two bones are either humeri or femurs because of the structure of the epicondyles (the dual protrusions near the large holes).

This difference presents more questions: Why

not carve both bridles from the same type of bone? How could the open end on the ulna bone hold a rope without having it slip out when the horse moves? And there are other unanswered questions, too. How old are the bones? Do the dot motifs mean anything? Why choose bone when wood would have sufficed? I suspect I will spend the next year or so (maybe longer) trying to answer these questions.

I am grateful for all the individuals—academics, curators, and collectors alike—who welcomed my questions, and, if unable to answer them, pointed me in the right direction. Without their willingness to help, I would not have made much progress. I found both objects in mainland Japan, but it's possible—maybe even likely—that they originated elsewhere, given the amount of trade that occurred. The Okinawa drawing and Landor's diagrams are good pieces of evidence, but not enough to declare the bridles' origins with conviction. Bitless bridles appear in a variety of cultures, and I'll need to do more research before I can say for certain where these came from. For now, I am happy to have answered the question I started with.

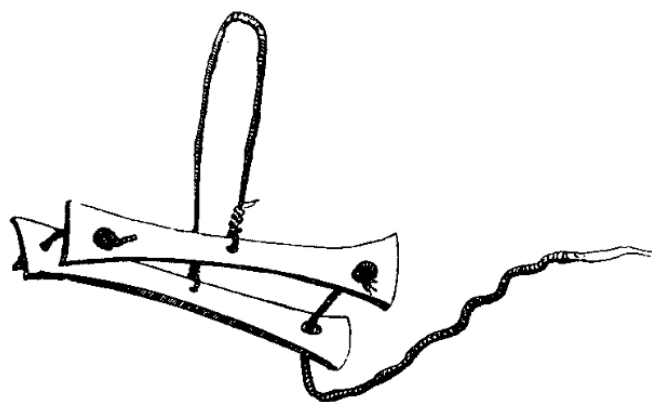


Illustration from A.H. Savage Landor's 1893 book

THE ARTIC VIEWED FROM FLORENCE, ITALY

By Elisa Palomino and John Cloud

We had an opportunity in 2021 to explore the world's first museum of anthropology, which was founded in 1869 by **Paolo Mantegazza** (1831–1910), in Florence, in the context of many centuries of previous ethnographic and philosophical work that converged there. That same year Mantegazza also established the world's first university professorship of anthropology. His museum, now lodged in the wonderfully named Palazzo Nonfinito, in the center of Florence, appears at first glance to be a relic of a now distant past, marooned in the 21st century—but it is not. The story of how this happened illuminates much about the history of anthropology.

Museums of anthropology are based on collections of materials, and in the case of Florence, the era of collections began in the time of the great Crusades (1095–1291) which were attempts to free "the Holy Land" from the Islamic kingdoms that controlled the ancient territories described in the Bible. The many campaigns never succeeded, but every Crusade offered many opportunities for pillaging and looting on route. The resultant hordes of relics, and bones of supposed saints, as well as whole forests of Middle Eastern trees cut down to provide wooden fragments of "The True Cross" that Jesus was crucified upon, were the foundational collections of what we now call museums.

In the centuries after the Crusades, changes in technology and social structures vastly expanded the collections. Europeans developed ocean-crossing cargo ships, coupled to the structures of modern banking, so that goods and money could move and circulate in ways never before possible. This brings up the history of the Medici family, integral to the history of Florence and much else. The **Medici** were smart and assertive commoners, from the region of Mugello, north of Florence. They started as wool merchants and ended as rich and powerful nobility. The family coat of arms proudly displays their origins: a shield with six three-dimensional balls of woolen yarn, protruding from the shield, a symbol still visible everywhere in Florence.



Bering Sea Kayak from the Cook expedition

Over centuries, the disparate collections that the Medici had gathered in their home, the Palazzo di Medici, were eventually assembled in a chamber in the Palazzo Vecchio, the great medieval fortress in the city center, which is still the seat of government of the city-state, Il Comune di Firenze. In 1563 Duke **Cosimo I de Medici**, newly proclaimed to royalty (by himself) commissioned the artist, art historian and architect **Giorgio Vasari** (1511–1574) to create a study chamber or ‘cabinet of curiosities. Up long flights of stairs is the Guardaroba, a secure chamber where cloaks and coats and swords were stored. The Guardaroba became the first public site for display of the vast Medici collections. Duke Cosimo referred to “the cosmography in the Guardaroba”, reinforced by a set of beautiful painted maps hung on the doors of dozens of cabinets and rooms around the Guardaroba. Behind each door was collections of diverse treasures from the area mapped.

Starting about 1564, teams of mathematicians, geographers, and wonderfully skilled artists created the major series of maps, which presented the cosmography of the known world (i.e., as known in Florence). As the maps were fitted to the doors of the cabinets of the collections, organized by region, the maps were essentially the finding aids to the collection. There are nine maps of the Americas and one map of Greenland. These maps are foundational to the history of Arctic Studies.

There were also a unique set of four maps, done separately, and apparently somewhat later, of “Polar Lands”. These maps were clearly derived from the work of the celebrated cartographer/mathematician **Gerardus Mercator**. In 1569, he published his world map, the first presentation of his Mercator projection. The distortions of the projection mean the north and south poles cannot be represented. Mercator made a separate, azimuthal projection of the region of the north pole in the corner of the map. He repeated this polar map in his first

atlas, from 1596. His partner and successor **Hondius** published a revised and refined version of the polar map in 1606, a foundational map of the history of the Arctic.

In the Mercator/Hondius map, the Arctic Ocean is open, and surrounded by four large lands. This concept evolved centuries before Mercator. The later introduction and distribution of magnetic compasses, from China, required some explanatory mechanism for how the compasses worked. Mercator proposed a giant black rock of magnetic iron, the *Rupes Nigra*, at the North Pole. When the British scientist **John Dee** wrote Mercator about the sources of the map, Mercator wrote back: “In the midst of the four countries is a whirl-pool, into which there empty these four indrawing seas which divide the North. And the water rushes round and descends into the Earth just as if one were pouring it through a filter funnel. It is four degrees wide on every side of the Pole, that is to say eight degrees altogether. Except that right under the Pole there lies a bare Rock in the midst of the Sea. Its circumference is almost 33 French miles, and it is all of magnetic stone”.

If we now examine the four maps of the Polar Lands, it is clear they map the four “indrawing seas”, with the *Rupes Nigra* presented at the top of each map. Details of the four lands that frame them are suitably vague (given that they didn’t exist) but the maps’ text notes the lands were north of very real places: above Greenland; above Hudson Bay; above the Bering Strait; and above Siberia. If ships could navigate to the indrawing Seas, but could avoid the polar whirl-pool, then they could navigate out on the other side: the fabled Northwest (or Northeast) Passage.

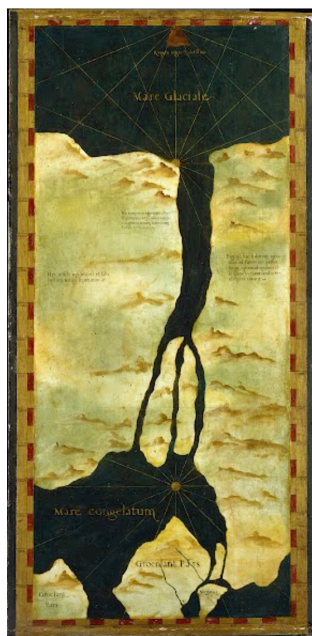
The maps are embellished with a myriad of gilded inscriptions, providing a most revealing body of text annotating the history of places and regions and the characteristics of the inhabitants, listing the natural resources and agricultural and livestock farming, mining,



Guardaroba globe surrounded by artifact cabinets



1606 North Pole Mercator and Hondius map



Lands above Greenland

craft-industrial and artistic products. The scroll of the polar lands imagined above Greenland reads: "This channel has three accesses, every year it remains frozen for about three months" and "Here are the pygmy who are four feet tall, as those that in Greenland are called Scredlirgi". The lands above Hudson Bay state: "This channel has five accesses and due to its narrowness and the rapidity of its flow it never freezes" and "The Northern parts are so far from us that few are those who wrote about them. They say the King of Norway having heard about it, sent people there to live". For lands above the

Bering Strait: "In the northern parts there are the islands of Bargu that **Marco Polo** states are looking north so much that the pole star is seen to go down towards the south". For the lands above Siberia, "The Ocean, entering these islands with 19 accesses, creates four channels flowing north without interruption and here it gets absorbed by the bowels of the earth."

The Medici never wanted a terrestrial empire—they were content financing others' empires and collecting compound interest on their loans. The Medici collections of artworks, rarities, and anthropological artifacts outgrew the Guardaroba. They were later transferred to the Uffizi Gallery, the Palazzo Pitti, etc. The idea of gathering together in one place the "natural productions" present in the Guardaroba dates back to 1763, when the Florentine naturalist and scientist **Giovanni Targioni Tozzetti**, on behalf of the Grand Ducal government, drew up the first catalogue of all the naturalistic exhibits in the Gallery. In 1765, with the arrival in Florence of the young Grand Duke **Pietro Leopoldo** of Lorraine (who was also a Medici), the museum project came to life, leading to the construction of the 'Palazzo della Scienza', at the noble Palazzo Torrigiani where 'La Specola' Museum is still housed today. Substantial new collections were added, particularly artifacts secured from the three global voyages of Capt. **James Cook** in the late 18th century, which introduced many salient Arctic artifacts to modern Europe.

Meanwhile, Florence continued to endure episodic wars, plagues, and revolutions. In the midst of all this, the structures and disciplines of the modern sciences

were developed, in Florence and elsewhere. The rise of disciplinary specialists in botany, geology, ethnology, etc. led eventually to the fission of the Medici mega-collections, into more focused thematic assemblages. These collections were moved to different Florentine palaces. In the 1860s, Italy as a nation-state was invented, with Florence as the first national capitol, while at the same time new major specialized museums in Florence were invented, including **Mantegazza's** museum, the first in the world to call its domain "anthropology".

Mantegazza perceived the fundamental unity of human societies, and his collections are organized by geographical regions, without reference to conceptions of a spectrum between "primitive" to "advanced". He was ahead of his times in various ways, particularly as to the psychology and science of sex. His position became ever more marginal with the rise of fascism. After his death in 1910, in 1925 his collections were moved to the Palazzo Nonfinito, where they remain displayed in wood and glass cases which have changed little in a century. The displays are dense, yet elegant, still marvels of the varieties of human cultures and their arts.

The Museum of Anthropology and Ethnology was "founded in poverty", with a contribution of only 1,000 Italian lire provided by the Italian Ministry of Public Education, a tiny and symbolic sum when compared with the costs of Italy's cultural patrimony. In the current ordering and funding of the arts and sciences in Italy, the Museum, along with the other major Florentine science museums, is funded through the Sistema Museale di Ateneo, the Museum System of the University of Florence. The University prioritizes the education of its students, and rightly so, which limits resources available to the museums. Nevertheless, the Museum of Anthropology and Ethnology persists, with a current emphasis on revealing the sub-structures of historical anthropology as it evolved, particularly the myriad ways that disparate humans were quantified and measured, and then partitioned.

These events in a city built on the banks of the River Arno, over half a millennium, are directly relevant to the Smithsonian Institution. The Smithsonian system of thematically defined museums, in large stately buildings, with an organizational structure of staff in departments and institutes, was not invented by the Smithsonian, but rather adopted. And thus, much about "the Arctic" can be experienced and learned from a place known for olive oil and wine, gelato and art, in Florence, which is "the city of flowers" on many levels.

We would like to thank Prof. **Monica Zavattaro** and Prof. **Gloria Roselli** from the Museum of Natural History: Anthropological and Ethnological Collections in Florence for our warm welcome to the museum.

UP-DATING “POLAR OBSERVER: THE ARCTIC DIGITAL LIBRARY”

By William W. Fitzhugh

Last year, in March 2021, the SI and Dartmouth College submitted a three-year proposal to NSF’s Navigating the New Arctic Program to initiate a pilot project for our Arctic digital library infrastructure network. Jesse Casana joined me as co-PI, **David Nordlander** as project director, and **Nana Naisbett** as project manager. Sealaska Heritage Institute directed by **Rosita Worl** and Kitikmeot Heritage Society of Cambridge Bay, Nunavut (Canada), represented by **Brendan Griebel**, joined as Indigenous partners. Records to form the experimental database will come from Smithsonian Anthropology and Library collections and from Dartmouth’s **Vilhjalmur Stefansson** archives. Search algorithms for discovering information from the database will be borrowed, and enhanced for the social sciences and humanities, from the Biodiversity Heritage Library (BHL), a primarily biological-based network developed initially at Harvard which the Smithsonian Library recently joined as a partner. Our PO-ADL network focusing primarily on early historical, anthropological, and humanities data, would also pull data from the BHL platform. Building on BHL will ensure inter-operability and allow PO to efficiently expand search procedures into the more taxonomically complex social and historical fields where subject terms and categories have more fuzzy edges. The goal of the pilot is to determine the feasibility of expanding PO into a full-fledged infrastructure into which data could be contributed from institutions holding Arctic region data, making a vast sea of inaccessible information available for users across the globe. Our Indigenous partners joined the project not only to provide testable data but to assist the development of protocols suitable for Indigenous information sharing and use-rights.

In August we learned that the grant was not approved, and we began working on a re-submission. In addition to sharpening the discussion of search mechanisms, clarifying the roles of Indigenous partners, and organizing yearly workshops, we added the Anchorage Museum as partner, and **Aron Crowell**, ASC Anchorage office director, joined as a second co-PI. Sensitive to fraught terminology, we changed the project name from ‘Polar Explorer’ to ‘Polar Observer’. To provide another potential source of funding that might allow us to start the pilot before NSF funding might be available, we also applied for an NMNH grant for a period of 18 months. If approved, NMNH funds would enable PO-ADL to begin as early as May or June 2022. The success of the SI-BHL partnership assures us that the establishment of an Arctic Digital Library would work technically and would make a vast

amount of currently hidden Arctic data available to researchers, Indigenous groups, and the world at large.

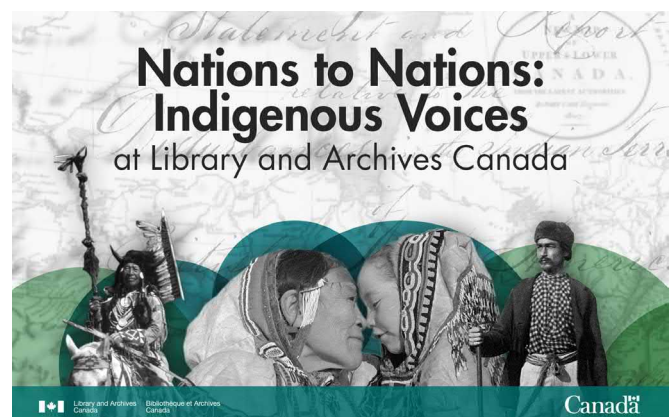
RE-PRESENTING ARCHIVAL AND LIBRARY COLLECTIONS THROUGH THE VOICES AND LANGUAGES OF FIRST NATIONS, INUIT, AND THE MÉTIS NATION IN AN INTERACTIVE EBOOK

By Beth Greenhorn

Author acknowledgment: I am a settler living on the unceded and traditional territory of the Anishinabeg (Algonquin)—the Kitigan Zibi Anishinabeg and the Algonquins of Pikwakanagan First Nation. I acknowledge that they are the first and rightful inhabitants of the lands and waters now called southeastern Ontario and southwestern Quebec.

As part of two Indigenous heritage initiatives, *We Are Here: Sharing Stories and Listen, Hear Our Voices*, the Library and Archives Canada (LAC) published *Nations to Nations: Indigenous Voices at Library and Archives Canada*, a multilingual and multimedia e-book featuring essays by First Nations, Inuit, and Métis Nation authors. The content is based on their personal connections to the archival and published material from the collections at LAC.

Historically, the Canadian government forced First Nations, Inuit, and Métis Nation children to attend church-run residential schools. The schools were part of a broader Federal policy to Christianize and assimilate these children into the dominant society. Students were punished for speaking their languages, and many individuals have not maintained fluency in those languages. Some are considered vulnerable, while others are severely to critically endangered.(1)



Title page of *Nations to Nations: Indigenous Voices at Library and Archives Canada*



Pre-contact map of what is now called North America with Icons linked to each author's essays and biography

The revitalization of Indigenous languages has been identified as a human right by international organizations, including the United Nations. The Canadian government has received calls to action from the Truth and Reconciliation Commission of Canada to rectify the colonial harms caused to Indigenous languages.(2) Work on the eBook began soon after the United Nations declared 2019 the International Year of Indigenous Languages. The original eBook plan was to feature archival and published documents held in LAC's collections in various Indigenous languages and dialects. Several months in, we recognized there is little in LAC holdings written in First Nations and Inuit languages or dialects. The Métis Nation records presented an even greater challenge, as there are no known records in Michif.

How could LAC support efforts in the reclamation of Indigenous languages and challenge dominant narratives of mainstream society? In time, we had a strategy. Each author would choose documents that held personal relevance to them or their communities, and interpret them from their point of view. Where possible, we hired language speakers in communities to translate the texts into the languages or dialects of the people represented in the records featured in each essay. The Indigenous languages would be presented as the main text, accompanied by English and French versions through popovers.

Pre-contact map of what is now called North America with Icons linked to each author's essays and biography

The ebook launched September 30, 2021, the inaugural National Day of Truth and Reconciliation acknowledging the lost children and survivors of Residential Schools in Canada. This edition of *Nations to Nations: Indigenous Voices at Library and Archives*

KÁHRHON ONKWEHÓN:WE
RAONÁ:WEN: KATÁTIE TSI
NITIAWÉN:NON

Itakawennaténion Hilda Kanerahtenhá:wi Nicholas

Owirá:'a ionlta'ahs ne káhrhon, iakonónhtats tónon iakonaktio tsi ieiá:ti. Ne ó:ni iakohsié:nons ne Onkwéhón:we ka'ništénshera onsaioakoi'ten ne niá'tewehnisirá'ké', nó:nen ne owirá:'a eniekénékerate. Iowehnohkwiá:kon tsi niú:re ne nákon tónon ne é:meken tsi fhatekonón:wake tsi tekaieromnió:há:ton, ne rathshere tsi nihononhótá'ten' aoté'niéntóhshera. Tsi entewafóhsawen ne káhrhon aiakón'ni, teiatokwéhé'te' oswínkare wá:stón. Tekahshá:kon ióshá:tié'té' tóni' tekahshá:kon oná'wá:sié'te' ne é'neken, ne iónnis ne aontá:óh'te' ne ienohshere, ó:nen ne ó:ká:ra tóni' onowá:sié'te' tekáronhwe éhó:ke ne teiatóh'á:tié:ren. Ne owí:ra é:ións' ká:nié'te' entewafóhsere tóni' ká:siere' teiatowawén:'éke'ne'tha ká:neren oswenkó:ke. Ská:shon ne káhrhon thá'teká:te, kwá:sh tsi entewafóhsawen tsi teiató:ronion tsi niú:re enwóthúsa tsi iakononnió:há:te. 'Táka' nán-we wá'kahrátó:kwén, kákonsherdhron, tóni' aiá:shon nahó:ten enwá:sten', tsi ni:oiht tsi niiaoká'taró:sten, ne sa'oié:ra, ká:nié' ne ó:wá:se' tsi tekaierónion. Ne owirá:'a iakoiá'toní:ron tsi ieiá:ti ne oswen'kó:ke, itaká:wis ne ka'ništénshera teiató:terihwó:kwá:sh ne ská:non tsi aié:ntóke ne owirá:'a, tsi kí' ni:oiht ne ka'ništénshera 'ontate'ništé:ha teiató:teriwá'kwé:ni siéwirá:'a. Tsi niaká:nhshéhs neka'ništénshera tónon ne owirá:'a wá'kaié:nta'ne ne kanorónhkwá:shshera.



Rahkaratá:kwás Marc Montour rónnis ne káhrhon, Kahawá:ka Mahawik Territory, Quebec, 1982.



ENG ENG ENG ENG ENG ENG
First Nations Cradleboards: Understanding Their Significance and Versatility

Page from First Nations Cradleboards: An Enduring Heritage, written by Elizabeth Kawenaa Montour and translated into Kanien'kéha by Hilda Kanerahtenhá:wi Nicholas

Canada includes the following First Nations languages and dialects: Anishinaabemowin, Anishinabemowin, Denesúliné, Kanien'kéha, Mi'kmaq, nêhiyawêwin and Nishnaabemowin. Inuit content is presented in Inuttut and Inuktitut (Roman orthography and syllabics). A selection of images in texts about the Métis Nation is accompanied by audio recordings in Heritage Michif.

The stories are often personal. Describing her research on cradleboards, **Elizabeth Kawenaa Montour** reflected: "It really made me connect to cradleboards and understand them as a mother." Her hope is to pass the knowledge she learned onto future generations.(3) Younger citizens of the Métis Nation, including author **Delia Chartrand**, cannot speak Michif. Recalling her childhood, she writes "I did not grow up on my traditional territory... I did not grow up speaking my traditional language. Michif was not an option in our household as my father had long forgotten how to speak what he called 'Bush French'."(4)

Inuit in Nunatsiavut learned to read and write in Inuttut until 1949, when it was cut from the curriculum. According to Inuk author **Heather Campbell**, there is only one speaker left in her community of Rigolet. In her words: "Seeing the damage done in just one generation makes you realize how fragile these languages are."(5) In "Inuktit Publications," Heather looks at language revitalization in Inuit Nunangat (Inuit Homeland in Canada) through a selection of books written in different dialects of Inuktitut.

While each essay is unique, they are connected. They are about truth telling and the sharing of culturally distinctive knowledge. They deconstruct colonial ideologies that privilege Western approaches and interpretations to the historical records. Ultimately, the

LINGUISTIC DIVERSITY IN THE MÉTIS NATION

Written in English by Delia Chartrand

A singular language does not represent the Métis Nation, nor is there just one form of Michif among the Métis. The languages of the Métis Nation are in fact as colourful as the threads of the sash, which has come to represent its people.

The Métis were often multilingual. Many spoke several Indigenous and European languages out of economic necessity and because of family ties. The activities of the fur trade and mobility across trade routes led to linguistic synergy among the Métis in their roles as traders and translators, as did their kinship bonds. Fully formed speech communities became established. These newly developed speech forms encompassed elements from both

Indigenous and European languages and cultural frameworks. The lexicon of many of the varieties was fluid and based on the regional diversity of the various communities and cultures with which they interacted.



Voyageurs on a portage, likely taken near the Ontario-Manitoba border, 1858. WWW.

Image Description in Michif by Verna DeMontigny

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Page from *Linguistic Diversity in the Métis Nation* written by Delia Chartrand, featuring an audio recording describing the photograph in Michif by Elder Verna De Montigny

essays demonstrate the diversity of histories, languages and cultures of First Nations, Inuit and Métis Nation.

Nations to Nations: Indigenous Voices at Library and Archives Canada is free of charge and can be downloaded from Apple Books (iBooks format), or from Library and Archives Canada's website (EPUB format). An online version can be viewed on a desktop, tablet or mobile web browser without requiring a plug-in.

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4. Delia Chartrand, "Centuries of Kinship-Exploring Métis Identity through Genealogy," Library and Archives Canada Discover Blog, October 11, 2020, <https://thediscoverblog.com/2020/10/11/centuries-of-kinship-exploring-metis-identity-through-genealogy>

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OUTREACH

KNOWING NATURE: STORIES OF THE BOREAL FOREST

By William Fitzhugh and Stephen Loring

Almost a decade in the making, the Arctic Studies Center's exhibition originally titled *Boreal: Visions of the World's Largest Forest* (among other title favorites) has been designed and is scheduled to begin its North American tour in April 2023. Produced by a committee coordinated by SITES project director Carol Bossert, the exhibition focuses on the biodiversity and global importance of the our northern-most forests through first-person stories, authentic objects, interactive experiences, and exquisite photography and videography. Besides **Loring** and **Fitzhugh**, the core team included **Rob Mullen**, **Kevin Brownlee**, **Gary** and **Joanie McGuffin**, **Jeff Wells**, and several others. As the SITES promotional blurb says:

"In a carbon-conscious world, boreal forests are significant, storing three times the amount of carbon as tropical forests. Boreal forests provide nesting habitat for over fifty percent of migratory bird species. Many of our most familiar back-yard birds started their lives in the boreal. Indigenous Peoples have lived in these forests for thousands of years and today, their knowledge offers a vision for a sustainable future. This timely exhibition integrates the 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."



Once but for rivers the nearly inaccessible forests at the top of the world face increasing pressures from resource extraction as roads and infrastructure threaten their viability and integrity. (The trans-Labrador "highway" north of the Manicouagan, west of the Ashuanipi. Photo by Stephen Loring).

NATIVE AND AMERICAN ETHNO-MEDICINE AT LEBANON SPRINGS, N.Y.

By Ted Timreck

The Lebanon Valley southeast of Albany near the Massachusetts border has been a source of healing waters and medicinal plants since the end of the Ice Age. The interactions between the Native American and Shaker spiritual and secular communities that developed around the New Lebanon Hot Springs and the wetlands in the valley below profoundly influenced the history of American medicine.

A few years ago, I received a request from a member of the Select Board of New Lebanon, N.Y. asking if I could find a way to connect the town of New Lebanon with the Shaker Museum which is located at the original site of the Shaker spiritual community on the slope of Mt. Lebanon. The Select Board was interested in linking the town and the Shaker Museum to better share their combined histories and attract tourism. It didn't take long to recognize that the town and the historical Shaker site were both connected to a wetland which the early USGS topo maps referred to as The Shaker Swamp. I thought of this as a communication design problem that could make a contribution to my local community. But with more research, I began to discover that the environmental and historical record of the wetland extending back to the region's Indigenous peoples was one of the most interesting anthropological stories I had ever encountered.

The Shaker Swamp Crossroads

The hills surrounding Lebanon Valley draining into The Shaker Swamp are honeycombed with limestone outcrops and caves. Water travels through the limestone underground and surfaces in places like the famous Hot Springs of New Lebanon--a calcium healing spring known from Indian times. The water becomes calcium-enriched as it seeps through the limestone, emerging at the hot spring at a constant 74 degrees and into Shaker Swamp where NY routes 20 and 22 cross. Rt 20 is the longest east/west road in North America and extends from Boston to the Oregon coast. I suspect that many parts of the highway may have been Indian trails before European contact. Route 22 is the longest, well known Indian trail in New England and runs from the tip of Manhattan north to Canada. These two ancient highways cross in the middle of Shaker Swamp—perhaps not by coincidence.

The calcium rich waters that collect in the swamp encourage the growth of rare medicinal plants. Native American tribes would visit the wetland regularly and understood how to harvest and prepare its medicinal



The Lebanon Hot Springs were deeded by the local Indians with the written stipulation that the healing waters would always be made available to the public



Shaker Swamp

plants. This is known because after the Shaker religious community settled here in the late 1700's they invited the Indians to harvest the plants and trade their medicinal knowledge with the Shakers, who in return shared medicines from their European tradition. A record of these interactions was written down in the Shaker documents of the time and is preserved today in the Shaker Museum.

It is widely held as urban legend that Native Americans taught early European settlers about their medicinal practices, but it is extremely rare to have any contemporary, written documentation of an actual cultural exchange preserved in an archive. Certainly, this is testament to what may have been a rare event, a mutual appreciation between the two cultures during the early 1800's, at a time when this kind of behavior in the eyes of most Americans might have been viewed as inappropriate, or even as seditious during the Indian Wars of the early and mid-19th century. This documentation about a cross-cultural connection to a specific environmental situation points to the scientific and historical importance of preserving the New Lebanon wetland site and its unique American story.



A Tilden Company advertisement ca. 1900



Narragansett Tribal Preservation officer Doug Harris inspecting stone ruins found at the edge of the Shaker Swamp

The Shakers began to harvest the medicinal wetland in earnest, and by the mid-19th century scholars say the Mt. Lebanon Shaker community was harvesting, packaging, and shipping up to 25 tons of herbal medicine per year to the rest of the United States, and even beyond, to Europe. Also by the mid-19th century, the **Tilden** family who had settled in New Lebanon, worked with the Shakers learning the medicinal secrets of the Swamp. At a time long before the official patenting of medicines in America, the Tildens split from the Shakers and started their own enterprise, eventually building the first pharmaceutical factory in America at the northeast corner of the swamp. For the next hundred years, the Tilden Company was a premiere supplier of natural medicines until they were eventually hounded out of business by the Federal government in the early 1960's for making "unsubstantiated" claims for their medicinal products. It's interesting that the long history of the discovery, development, and manufacture of American 'natural' medicines began to fade out in the 60's just as the new cultural wave of 'alternative' medicine was beginning to emerge.

Today Shaker Swamp still contains many of the original medicinal plants that the Indians, the Shakers,

and the Tildens utilized to make their formulas. There are extensive records of the plants, along with how to harvest and prepare them, and the listings of the ailments they help cure in the Shaker and Tilden records. The story of this still existing ecological situation connected to the saga of medical information being passed from the Indigenous population to the first settlers and on to corporate entrepreneurs of early America is a history that requires an integrated, interdisciplinary approach.

When I began to see this story unfold, I inquired about the swamp from people in New Lebanon, only to discover that hardly anyone was aware of the rich, ecological and cultural history of the area, and in particular, the documented connections between Native medicinals and today's pharma-industry. Working with the Shaker Swamp Conservancy and the Darrow School which now exists on the site of the old Shaker community, our goal is to preserve this diverse, natural habitat, offer the public a chance to experience the beautiful interior of the swamp through paths and boardwalks, and to build an information center for the town, the Shaker Museum, and the Darrow school that offers visitors the full chronicle of this remarkable story about an unrecognized foundation of American pharmaceutical medicine.

For a visual introduction to the Medicinal Wetlands please go to: <https://vimeo.com/683562236>

INTEGRATING INUGHUIT AND GREENLANDIC TRADITIONAL KNOWLEDGE WITH ECOTOURISM DEVELOPMENT IN GREENLAND

By Martin T. Nweeia

Research objectives for the project described below focus on finding pathways to integrate Inughuit and Greenlandic community members in the growing Greenland eco-tourism market. Prior work by the author were focused on collecting Inughuit knowledge about the narwhal for biologic and ecologic studies of this elusive and legendary Arctic whale (1).

Despite COVID-19 travel restrictions, our team was able to visit Greenland during November of 2020 and June of 2021. With support from the Ocean Foundation through USAID, we met key stakeholders in Greenlandic government, business, academia, media, and education to develop ideas and projects that would harness local Greenlandic knowledge for the development of eco-tourism. Our partnerships between the Inughuit and Greenland community members follows USAID guidelines promoting the rights of Indigenous peoples.

The International Ecotourism Society defines ecotourism as “responsible travel to natural areas that conserves the environment, sustains the well-being of local people, and involves interpretation and education.” Programs to develop ecotourism with input from Inughuit and Greenlandic representatives have been initiated by a team including the author and **Pamela Peeters**, an environmental economist and sustainability strategist, during meetings with Greenland partners in November 2020 and June 2021. Community consultations were held in Nuuk, Kangerlussuaq, and Ilulissat, and will continue in Ilulissat and Sisimuit. COVID restrictions limited access to Narsarsuaq, Ummannaq, and Qaanaaq. We added visits to Hunde Ejland and Disko Island since these are communities with strong ecotourism potential.

The primary objective was to establish programs that include Inughuit and Greenlandic views about the environment, conservation, culture, music, and art. Greenlandic Inuit compose songs and create artwork inspired by nature that inform and teach about their relationship with the land, which is why they are essential to integrate with oral knowledge. Program development highlights Greenlandic Inuit knowledge that can be introduced to broad international audiences. Existing ecotourism offerings will be evaluated to identify market opportunities. A rich experience involving interpretation and education depends on community inclusion, integration, and collaboration. We explore ecotourism opportunities with an open eye, mind and heart, to seek ways of incorporating Inuit heritage. This can be accomplished through cultural programs in the arts, and

commercial venues like ecotourism shops that provide economic benefits to tour operators and Greenlandic artisans and shop owners.

Ecotourism (sustainable tourism) incorporates the United Nations Sustainable Development Goals (SDG 5).

Ideally, goals 3–17 can be incorporated in ecotourism programs American enterprises can invest in. Prospective tour guide owners can incorporate more unifying messaging and sensitivity about sustainability related to cultural aspects of Greenlandic Inuit communities.

Other types of ecotourism operate in isolation and do not include cultural integration. Some focus more on the landscape and biodiversity than on Inuit culture. Offshore cruises and yachts are becoming more common, with some, or no onshore cultural events. Because of the wide variety of approaches, many solutions for success need to be considered. A social impact assessment should be done to record efforts from these myriad approaches.

Several challenges are presented in finding ways to bridge American and Greenlandic ecotourism perspectives. First is the sheer cost of visiting and working in Greenland, which can be prohibitive. Though American investment may offer solutions, cultural differences need to be considered. Second, cultural insights and historical perspective, balanced with economic opportunity, can provide a more balanced approach. Though Greenland has ceased being a formal Danish colony in 1953, autonomy is still rooted in Danish colonization. Hunting grounds were taken away, and the Thule American airbase was built after an existing Inuit community was given just a few days to move. Past

THE GLOBAL GOALS
For Sustainable Development



USAID Sustainable Development Goals



Visit Greenland leads Hjörtur Smárason, Chief Executive Officer, and Mads Daniel Skifte, Deputy Director with Dr. Nweeia. Photo by P. Peeters



L-R: Sakiko Daorana ,Erik Bjerregaard (Founding Manager of Arctic Hotel), Pamela Peeters, Martin Nweeia and Suzanne Bjerregaard, owner of Glacier Shop in Ilulissat. Photo by P. Peeters

and current commissions to investigate wrong-doing still find expression. International financial interests in mining exemplify ongoing motives. If ecotourism is to be seen as a potential economic opportunity, it must be balanced with cultural sensitivity. A brief historical perspective should be part of investor orientation so that economic opportunity is met with understanding. Acknowledgment of this history gives context to the socio-economic approach recommended for establishing stronger relationships with Greenlandic Inuit partners. Success will depend on mutual respect and consideration of social consciousness incorporated at every phase of development.

Results of this work, conducted in partnership Pamela Peeters, Founding Director of the Institute for a Sustainable Planet, have so far included:

1. A website that celebrates Greenland, including written descriptions, original photographs, and video vignettes produced by business, cultural and educational leaders;
2. Relationship building with business, government and education leaders to foster reinforcement for Inughuit and Greenlandic perspectives;
3. Creation of a white paper that describes historical context and current issues to help foster positive and respectful opportunities in developing ecotourism platforms;
4. Supporting cross-cultural exchange, social media campaigns showcasing Greenlandic-American collaborations and exhibitions;
5. Demonstrations of visual learning through Microsoft HoloLens. Ongoing efforts to foster exchange and insights will assist future business, government, and education efforts to approach programs with a cross-cultural, integrative, and collaborative objective.

Reference

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NORTH BY NUUK: GREENLAND AFTER ROCKWELL KENT

By Denis Defibaugh

My anticipation of the short 30 minute flight into Illorsuit for my first time in the classic Air Greenland

Bell 212 helicopter was worth all of the five flights and three days from Stafford Air Base in the USA to Kangerlussuaq to Ilulissat to Qaarsut to Uummannaq and now to Illorsuit. I was as excited as a kid in a candy store as we boarded the full flight with eight other passengers jockeying for the prime window seats for the flight north to Illorsuit. Our helicopter lifted off, whipped around Uummannaq Island, and headed north as we entered the widest stretch of the Uummannaq Fjord. The stark white contrast of the massive sculpted icebergs spotted the deep cobalt blue of the fjord. Off in the distance the mountainous snowcapped range of the Greenland mainland could be seen to the east along with the seemingly infinite Greenland icecap, and to the west the southern tip of Ubekendt Ejland came into view.

[From **Rockwell Kent**]: *“Its seagirt isolation along with the grandeur of its stark, snow-covered tableland and higher peaks, the dark cliff barrier that forms its western shore—there is a glamour of imponderable mystery about the island which dignifies it even at the gateway of a region of stupendous grandeur. Its cliffs, proclaiming inaccessibility, preclude the thought of human settlements.”*

As we sweep around the headlands into Illorsuit on the northeast end of island, the broad mile-long horseshoe-shaped black sand beach of Illorsuit came into view with its colorful homes of blue, red, yellow, and green border the beach and fjord. The settlement of Illorsuit occupies a sloping narrow spot of land between the Illorsuit Sound and the rugged black mountain walls that surround the community. My colleague called the settlement claustrophobic as homes nestle into the crescent community of Illorsuit. The only way out is by boat, dog sledge, or snowmobile via the Sound. And by helicopter on Monday or Wednesday, weather permitting.

We landed some 300 miles north of the Arctic Circle on barren headlands that lack any structures. The helipad is a flat dirt surface surrounded by orange barrels. Beside the helipad is the cemetery, located



Iceberg with people and vehicle



Defibaugh in snow

100 meters to the east, and the dump 400 meters to the south. Town managers **Jarte Kornellieson** and **Kasper Kornellieson** met the helicopter on arrival, and Jarte led us to our sleeping quarters for the next ten days. My colleagues, **Axel Jeremiassen**, **Susan B. Vaneck**, **Jette Rygaard**, and I took up residence in the community center's exercise room and kitchen. Conveniently, the building housed the community showers and the only running water in the settlement. This first trip began three extended visits to Illorsuit that lasted on and off from June 1, 2016, until leaving for the last time on March 21, 2017 in a snowstorm with me trudging through snow drifts to get to the helicopter.

A very different experience was had by **Rockwell Kent** in July 1931 as he entered the bay by boat and seeing Illorsuit, a remote settlement of 150 inhabitants of hunters and their families. Kent described, "nine interminable hours of our trip from Uummannaq," into Illorsuit Sound, and past the steep inaccessible cliffs of Eastern Ubekjendt Island. Kent described the locals' "cry going up" as women residents wearing their brightly-colored native clothing and men in their seal skin pants and anorak tops come out of the numerous little mounds of earth that dotted the settlement to greet the newcomers.

Kent's 1931 goal was "to experience the Far North at its spectacular 'worst'." Inspired by Kent, and supported by a National Science Foundation award, I followed eighty-five years later in 2016 to experience this extreme environment, image its sublime splendor, and to explore the Inuit's culture and relationship with the land. Illorsuit, the remote settlement today of 70 people with no cars or roads, can be very quiet at times but it is a perfect background for a comparative exploration in the long history of Arctic photography.

This flight was the beginning of an 18-month Greenlandic immersion to photographically detail Inuit culture and Greenland environment. The project research included video interviews with elders, teachers, hunters, and various Greenlanders which

provided an oral history of contemporary Greenland. Photography workshops offered for students provided cameras and presented exhibitions that highlighted student photography of their families, communities, and dreams.

Research also included the communities of Nuuk, Sisimiut, and Uummannaq. The book and exhibition, *North by Nuuk, Greenland after Rockwell Kent*, provides an engaging and revealing view of change and continuity in Greenland. The future of Greenland is unclear. As climate change and global warming continue to dramatically affect the ice cap, settlements are slowly being abandoned, and population continues to decline. Separated by eighty-five years of change, my photography and writing documents the modernity of Nuuk, Greenland's capital, the primal and social landscape, traditions, culture, and people of relatively untouched remote arctic communities.

The exhibition of *North by Nuuk, Greenland after Rockwell Kent* will be on view in February and March 2022 at the Plattsburgh NY State Art Museum, Burke Gallery and Slatkin Gallery, and at the Fenimore Art Museum from April thru December. The book is available at RITPress, www.ritpress.rit.edu .

INUIT TIK-TOKERS: SPREADING KNOWLEDGE IN 60 SECONDS OR LESS

By Fiona Steiwer

The past two years of confinement have led to many creative ways of communicating. The app TikTok has stood at the forefront of this wave of social media-based interaction. The app, which gained popularity with Gen Z just before the COVID-19 pandemic, has revolutionized the way users interact, with meme and musical trends that take over the internet within mere moments of their creation. But the app isn't just for Gen Z anymore, users of all ages have carved out niche communities on the forum that create an addicting void that draws individuals of all backgrounds to the shiny surfaces of their smartphones.

During the extensive amounts of my personal time that I myself spend on the app, I found myself on the Anthropology side of TikTok. This is a wonderful place, where Indigenous content creators have created a community where they are able to share music, art, recipes, and their daily personal lives with the world. Such as the Inuk creator **Shina Nova**, who gained her following by posting *katajjaq* throat singing videos with her mother and OOTD (Outfit of the Day Videos) wearing traditional clothing like the *amautiit* parkas that her mother sews. She recently documented the process of getting her *kakiniit* facial tattoos and is the

first in her family to do so in a generation. In a series of videos Shina documents the four hour journey the pair made across Canada to complete the procedure.

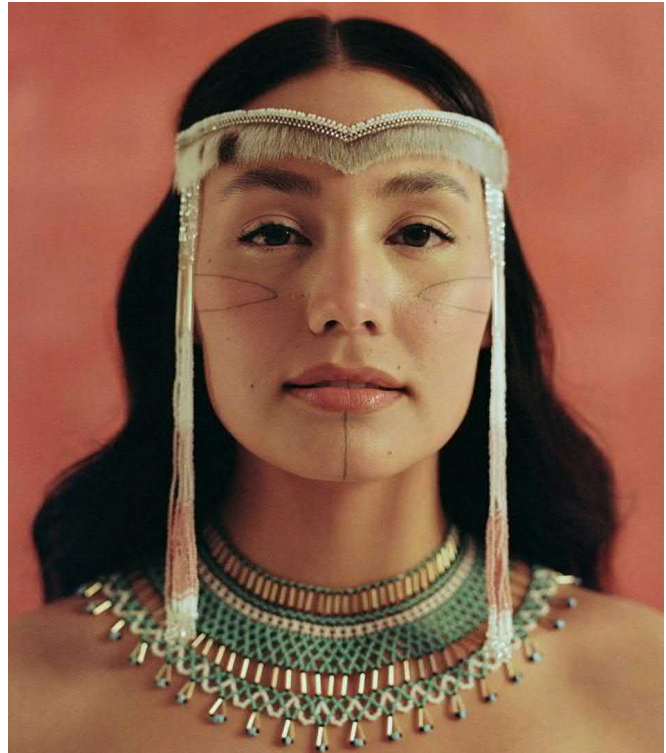
In the wave of her TikTok fame, Shina was made the face of French Sephora, along with several other Indigenous influencers.

This forum not only allows for content creators to send their product out into the wide world but provides opportunity for discussion through the comment feature. The TikTok algorithm creates each user's custom FYP ("For You Page") that compiles videos from across the app based on their previous likes, comments and interactions on the app. This allows people who normally may not seek out Indigenous content to gain a greater understanding of the Indigenous lived experience. With the current standing of education surrounding Indigenous people and their cultural practices, such as in the United States, this may be more informative than many of their school courses—especially when showing the public that Indigenous people are not a thing of the past but a community with young people who desire to continue their cultural traditions with their families.

The social media giant allows for Indigenous content creators to have an active say in how they are represented in the media and to respond to how other content creators and corporations (which have a large presence on the app as well) who may attempt to profit from the stereotypical image of a Native American or First Nations Person. This dichotomy was highlighted during the discussion surrounding the naming of the Washington Football Team in 2020.

Content creators have also facilitated discussions surrounding topics such as Cultural Appropriation, Cost of Living on Reservations, and Land Back, to name a few. However, the holding of this forum on an app does create accessibility concerns, especially for individuals who may not have access to the internet or a smartphone, which disproportionately affects Indigenous communities. ADA accessibility for blind and deaf individuals was a large concern at the onset of the app; now closed captions, voice overs and added features help to provide content access to all.

The app serves as an incredible feature for young people to connect with anthropological and archeological content and serves to combat the leagues of misinformation that exist on other servers as young archaeologists are able to directly confront those who spread misinformation using the "stitch" feature, which allows for them to attach a video to the content of the creator spreading misinformation, allowing for their followers and the followers of the original creator to



Shina with her kakiniit, image sourced from her Instagram

view their response. It also allows young Indigenous people to connect with their elders and communities no matter if they live near them or across the world. While many may critique Gen Z for being "chronically online," in this case, social media has fostered space for a thriving community that should be celebrated, which gives me hope for the future of anthropological research and discussion amongst my peers and I as we rise in the ranks of the field.

SOUNDS OF THE ARCTIC

By Charlie Morrow

This story begins with a headline from *Physics Today*: "Ocean acoustics in the changing Arctic. Recent changes in ice cover and ocean stratification have been so large that acoustic measurements made during the Cold War no longer reflect current conditions."* and a note from New England poet, **Robert Frost**: "*Mr. Browne has alluded to the seeing eye. I want to call your attention to the function of the imagining ear.*"

Arctic sound has been on my mind for a long time, long before I saw this headline or read Robert Frost's note, Frost a resident of early 20th century cold New Hampshire. The weather records of his life span show that Frost knew very cold winters. My full body arctic sound experience happened when I first travelled to Lapland in the 1980s to record sound for **P.A.**



Arctic sound room, from Stephan Andreae's Arktis Antarktis, Bonn Kunst und Ausstellungshalle

Simma's dramatic film, "*Beyond Night and Day*" and **WDR Klaus Schoening's** "*Metropolis Arctic*."

My audio studio experience of extraordinary arctic sound first was on a 1979 visit to the Helsinki radio studios of state broadcaster, YLE Finland, when I swapped my conch horn sounds for a collection of Arctic sounds made by YLE location recordists for productions. Those recordings were by local recordists, who had access to both first class audio gear and paid projects. They had developed arctic hearing as a part of living in the region and techniques for capturing the sounds as they heard them. I spent my adult life working in sound studios in New York as part of art and business media production, so their work was quite different from my location sound work. To start with, they knew how to keep their sound and image equipment and their batteries warm enough to function in sustained cold.

In YLE, for the first time, I heard tiny splinters of ice blown across a hard ice ground cover. It is spine tingling. For the first time, I heard calving icebergs, vast and unforgettable. The slosh of pack ice pieces makes clattering sounds like an enormous ice soup, during freezing times and again in the warming times. Deep down are grumbles and talking sounds, under your feet on frozen sea surfaces and iced lakes, you hear and feel them. At the moon of the breakup, of ice and in preludes to it long before is the breaking up of ice, there are physically long tearing sounds from cracks stretching out over horizontal distances. One's ears' measuring capacity is instantly on. Humans have a hyper audio alertness. Locals seem to hear and interpret sounds spontaneously, sounds close by and sound from great distances.

Humans hear directionality in 360 degrees, near and far. It is a combination of hearing and listening,

of focus and signal processing. Remember the cocktail party sound model. Even in densely noisy situations, we can focus on the voice of someone talking and understand what was said. A microphone placed where party ears are located captures an undifferentiated, blended sound. It takes police grade software to reveal embedded conversations which our ears and minds manage routinely.

In the Arctic open spaces and absence of human noise, we can try to hear the complex and varying languages of the winds. To be decoded are sounds of ice and snow, from the surfaces to deep below grade, in the spectrum between total motion-and-flux to resolutely calm and frozen. Because environmental sounds relate to danger, safety, wellbeing, our bodies auditory systems have no earlids and very fast responses at diverse sound levels for reception and identification of their sources.

Notable in the Arctic is the need to balance internal and external pressures on the ears, on the body, and on the psyche. In the Arctic and Subarctic, one can experience being enveloped by the local quiet. And totally raging winds and some of the loudest sounds on earth from the ice and snowscape.

One is immersed and entranced in the way sound travels long distances. Near and far hearing skills are essential. It is some balance between zoom-in focus and balancing the overall signal to noise. The ear seems to both focus to localize sound direction and have broadband attention for taking in the soundscape wedded to the landscape and atmosphere. Composer **Pauline Oliveros** coined the word *sonosphere*.

Humans have to dynamically balance external pressures with internal changes. Robert Frost's imaging ear is connected to the alertness and calm needed to just be here. There are ever present dangers of ice, water, wind, and living predators of our own and other species. There is a kind of local, quiet personal style laced with ways of winding up from silence to intense chattering, which can keep going for hours.

As well, it is essential to have understanding of the landscape and local lifeforms in every season. Sight lines are long. There is a traditional of surveilling, curiosity and gossiping. I was out on frozen tundra on a snow scooter and ignorantly almost drove into a dangerous hidden ravine. When I was back in the small town, I was publicly laughed at by the folks in the local bar as an idiot who could have perished. Eyes and ears are beaming everywhere. Gossip rules.

For almost 20 years now I am commuting between Finland and Vermont. In early March, I negotiated the *rosputista*, slippery ice on the sidewalks and

roads of Helsinki. That Finnish word is derived from the Russian term for “*two seasons of the year, spring and autumn, when travel on unpaved roads or across country becomes difficult, owing to muddy conditions from rain or melting snow*” (Wikipedia). Slipperiness and the slipping sounds fill the air.

The sound cycle in the Arctic is driven by the light cycle. The light cycle includes rapidly changing springs and autumns, totally dark months when the stars and moon can light up the snow cover, and totally light months with intense light from above challenges the eyes, the skin and the mind.

Here are some Arctic features with sonic components: At the equator, the earth and one’s ear is spinning at more than a 1000 miles and hour, whereas in the arctic, the spin is inches per hour. // The distance between earth segments, between longitudes, works its way to zero at each of the two poles. // The seasonal change in spring and fall is faster than anywhere on earth with sudden and dramatic growth of plant life. // The light cycle and temperature swing is at the most extreme on the continuous oscillation between dark months and fully light months. // Directional hearing and body balance are processed via the ear’s mechanism, in relationship to atmospheric pressure, temperature and gravity. // The populations of humans in the Arctic are small compared to the built world’s denser population areas. // The combination of long cultural memory, telling of the past is side by side with use of the latest technologies with instant contact and deep databases. Arctic languages are rich with words describing the diversity of weather, light and darkness and have sonic components that permit understanding in Arctic sound environments. // In the continuous and most ancient culture of Sami people there are ways of talking with animals, with spirits and with the physical world. // There is joking vocalizing that contains family sound marks, much as the ears of reindeer have family cut marks, and there are traditions of respect for ownership and permission to use them. // There are unique nonverbal articulations and physical gestures to communicate unique content. // During the past centuries, Arctic indigenous communication and expression has been suppressed and even punished. Recently, these ancient practises are being allowed to live and grow. Such freedoms can be fleeting. // 21st century technology for recording images and sound has made it possible to capture and archive, to communicate over long distances. Such technologies have changed ones relationship to the all environments. With climate change and increased social instability, we should consciously record and cherish what is and what may not happen the same way again in the Arctic.

* *Physics Today* 73, 12, 44 (2020)

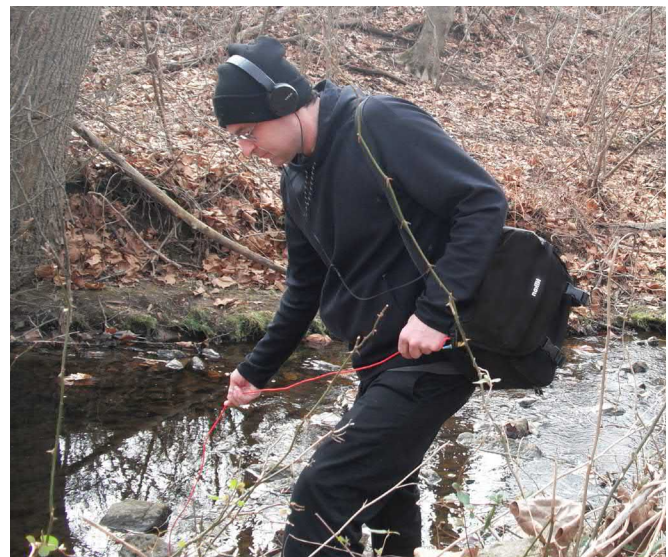
INTERNS AND FELLOWS

USING MEDIA TO ENHANCE AND COMMUNICATE ARCHAEOLOGICAL AND ENVIRONMENTAL RESEARCH

By Alex Jansen

While at the Smithsonian Institution’s Artic Studies Center, I worked on the photo-documentation and digitization of museum collections, including the Kolikhtalik archaeological site finds from Labrador, Canada. I engaged with these objects not only from a scientific-point-of view, but also an aesthetic one. While using side lighting and a copy stand to highlight flake scars on chipped stone artifacts and textures on ground stone artifacts, I was able to illustrate the processes involved in the production of these artifacts. The use of these technologies built upon my understanding of these objects as an archaeologist by allowing me to engage with them on a more creative level. This work demonstrated the ability of photography, illustration, and other media to enhance our understanding of archaeological collections through close inspection with objects in addition to traditional methods of analysis and observation. This work also showed that we can enhance our understanding of past cultures by experiencing their technologies through the sensation of direct touch, which is usually not possible with the public’s exposure to museum collections. I also worked on the photo-documentation of museum events, bringing these experiences to the public and larger academic community.

In recent years, I have used photography, illustration, video, hydrophone recordings, and other media to



Alex Jansen collecting sound

engage with cultural and natural environments. I worked with Chesapeake Bay Foundation documenting oyster growth using photo-documentation, underwater photography, video, and hydrophones and documented over two dozen species native to Chesapeake oyster reefs. I was able to capture the relationship between oyster growth, water quality events, and biodiversity, which provided considerable information on human-environmental impacts and oyster restoration. This research demonstrates how these technologies enhance our understanding of coastal and marine environments and explore issues of ocean conservation.

I have also combined these technologies with my archaeological background. I have utilized my archaeology training to research and document native and ancient drinks and other cultural traditions to show how the cultural and natural world can be experienced through the senses. I have utilized photography and other media to bring this process to the public through the development of sensory experiences and exhibitions that engage the viewer through sound, smell, touch, sight, and taste. I recently had a collaborative sound installation with Platform1 Gallery in London, England, in which viewers were able to engage with coastal and marine environments through a soundscape of hydrophone recordings from my research in Chesapeake Bay. These field recordings of polluted underwater environments captured a soundscape never experienced by the public. Exploring this soundscape gave people a way to directly experience human impacts like engine noise. This project included a companion audio album, *Tracing Earth*, allowing people to experience the installation outside the gallery.

This work serves as a foundation for my future research and demonstrates how these technologies help create exhibitions and sensory experiences that bring cultural and natural environments to the public in ways that affect them on a personal and emotional level.

EDITING A DEER STONE BOOK

By Olivia Box

As I was coming to the end of my master's degree in forest ecology at the University of Vermont, I was looking for more ways to build my science communication skills. At UVM, I was researching the impacts of Asian longhorned beetle, an invasive pest that attacks maple trees, on forests in southern New England. My favorite part of the project was getting to collaborate with stakeholders, other researchers, and citizens. Science is stronger and more effective when

shared, and I increasingly felt myself pulled towards communicating science to the public. I freelanced for science and environmental outlets like JSTOR Daily Blog, The Counter, and Northern Woodlands. Throughout graduate school I had jumped at any opportunity to write about science or nature. I have always loved to write, but science writing blended the two things I was most passionate about. After perusing many job forums, I saw that the Smithsonian Arctic Newsletter had previously taken interns. I cold-emailed Bill Fitzhugh, who graciously responded and asked if I would like to help with an editing project.

This past year, I worked remotely with Dr. **J. Bayarsaikhan** and Dr. **Fitzhugh** editing Bayaraa's PhD dissertation, analyzing Mongolian deer stones and examining their historical significance, current discoveries, and theories. As someone with a keen interest in science writing, the editing experience I obtained was unmatched. Getting to edit a book manuscript was a unique experience for me—it was amazing to see how a field study of this magnitude came together and was refined for an audience. I had a writing professor who once told me that the more you edit someone else's work, the better you become at writing. After this experience, I definitely agree with this statement. What I like most about editing is making a story clearer and even more compelling. Not only did I learn about deer stones and anthropological field methods, I also got to see how Bayara and Bill joined forces to tell an engaging story. I feel lucky to have been a part of helping this narrative come to life, and I look forward to seeing the final product!



Olivia Box

BOOK REVIEWS

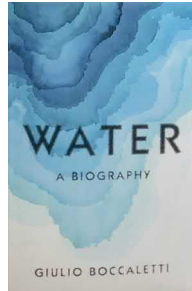
**WATER—A BIOGRAPHY, by Giulio Boccaletti—
Pantheon Books, New York, 2021**

Reviewed by Wilfred Richard

Giulio Boccaletti, the Chief Strategy Officer and Global Ambassador of Water at The Nature Conservancy, has produced a revelatory history, spanning continents and millennia, of how the distribution of water has shaped human civilization.

Although somewhat of a pretentious title, *Water* is a compilation of how water as vapor, liquid, and ice has configured human culture through its dependency for sustenance in various conditions of land, water, and air. He identifies agriculture as the integrating cultural mechanism of these three physical states.

For life to occur, the galactic-wide array of planets in our galaxy is dependent on solar gain and water. "... Water vapor acts as an enormous blanket trapping outgoing heat: it is the principal greenhouse gas" that makes Earth habitable" (p.5). Instead of the more-or-less random acts of hunting and gathering, human settlement "was the true Faustian bargain that society made when it transitioned to stationary farming: it chose to tame an unstable, dynamic environment" (p.8). That diaspora occurred over a disparate planet subject to a multitude of climate factors, temperatures, and soils: "...water transfers vast amounts of energy from the surface of the planet, warming it. The energy involved with weather associated with those cycles of water can overwhelm all human activity" (p.10). But, as "...*Homo sapiens*, late in its history, decided to stay in one place, surrounded by a changing environment, it began to wrestle with water, an agent capable of destruction and life-giving gifts" (p.13). Fixed-in-place agri-cultures become established only where temperature, moisture, and soil conditions permit. Agricultural success of political states varies around the planet. Early on in the evolution of the state, "Farmers had to do a lot of work to transform the Mesopotamian Plain into [the first] viable environment for agriculture" (p. 19). "Water was the only real source of power aside from human and animal force" (p.98). Continuing evolution of economic and political systems supplied the infrastructure for intensive agriculture to flourish. "The collision of finance and republicanism had led to state development strategies that framed decisions in economic rather in just legal terms" (p. 99). The course that was chosen pursued water as a public good.



A point of confusion may arise in terms of social organization, which is central to the ability of a population to manage its water resources. Themed by chapter title, the author variously cites water management throughout human history, referring to the Hydraulic State, Res Publica, Water Sovereignty, Empire, Revolution, and Discontent. Throughout, political and social infrastructure must efficaciously manage its water resources for the public good. Both Europe and China "...demonstrated how command of landscape could define the use of water resources in the national interest" (p.101). "The modification of the landscape to manage water and increase agricultural productivity...was a political act" (p.109). "By becoming the dominant unit of social organization, the territorial nation-state became the pre-eminent human institution to wrestle with water's power" (p.120). "By the time the nineteenth century was over, the United States had set itself up to become the most radical architect of water geography in human history" (p.135).

But not all continents and nation states have been blessed in terms of land and water. For example, Russia "...much further north than the United States...has about one-third of its land covered by permanent ice and frozen terrain" (p.155). Further south were arid landscapes. "With the exception of the Volga River, over 80 percent of the water of Russia flowed in the large Russian rivers that emptied into the Arctic Sea.... Seventy percent of people and economic activity were further south with less than 20m percent of the water resources of the country" (p.155).

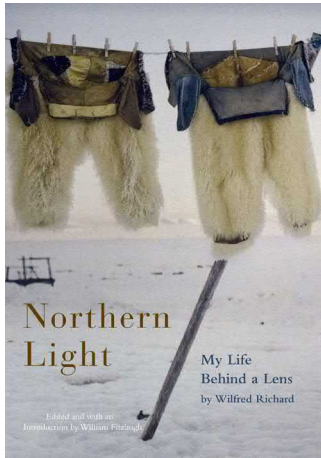
Utilizing scientific methods, producing food and managing land and water have been orchestrated to a significant magnitude in the relatively short period of time our species has resided on this planet...and by 2000, over six billion people lived on the planet, a fourfold increase in a single century" (p.168). Indeed, Boccaletti's *Water: A Biography* is an excellent record of global integration of land, water and the political which (so far) continues to sustain our world's growing human population. But, I wonder, just how long do you suppose this will last?

After-thought: There are two waste products which have become encumbered in our food chain. Soiling land and water, Earth constitutes a closed ecosystem. But look at how modern civilization is abusing them. In the 1967 film, *The Graduate*, local community leader Mr. Robinson (**Murray Hamilton**) tells a young graduate Benjamin Braddock (**Dustin Hoffman**) that "the wave of the future is plastics". Last week I was watching television and a quote was offered by

Canada’s Federal Environment Minister, **Catherine McKenna**: “If we don’t act, plastics will outweigh fish in our oceans by 2050.” This is certainly not what Mr. Robinson had in mind. Today, plastic certainly constitutes a primary threat to Earth’s ecology.

NORTHERN LIGHT: MY LIFE BEHIND A LENS, by **Wilfred E. Richard**—Smithsonian Arctic Studies Center and IPI Press, 2021, 201pp.

Reviewed by William Fitzhugh



For nearly fifteen years I worked with **Will Richard** as a partner on archaeological expeditions to the Quebec Lower North shore, researching Basque-Inuit contacts in the 16-17th centuries. Will volunteered to be the expedition photographer, but he was much more, and together we have published three books, the latest being this autobiography, which is a handsome volume

describing his life and experiences around the globe, but mostly ‘up north’ in what we have come to call ‘The Far Northeast’—from Maine to Greenland. Northern Light documents his early years growing up in northern New Hampshire, his stint in the Marine Corps in the Philippines, in the Peace Corps in Mauritius, as an economic development officer for the state of Maine. His life’s calling, however, grew out of adventure tourism company he started, which led him to kayaking in Quebec and expeditions to the Torngat Mountains in Labrador.

Will’s association with the Smithsonian began in 2001 on the Quebec Lower North Shore, and from there he launched his own projects exploring Baffin Island and Greenland, where he became associated with **Ann Andreasen, René Kristensen, Erik Torm**, and others as research scholars of the Uummannaq Polar Institute. Will’s relationship with Uummannaq’s Children’s Home resulted in many student exchanges between Maine and Greenland, including visits and student performances at the Smithsonian.

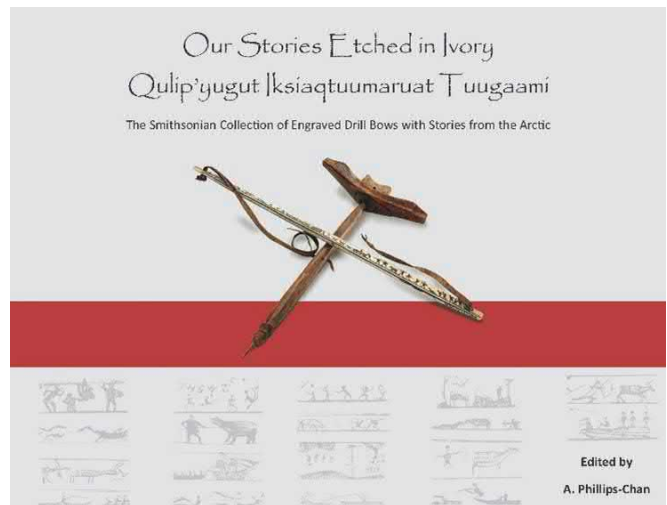
Northern Light documents all these events in words and ‘behind the lens’, drawing the reader into the vibrant life of northern peoples and its magnificent landscapes, all of which are delightfully designed into this small book by designer-publisher **Peter Mittenthal**

of IPI Press. But the real message here is a plea for improving stewardship of the planet, especially as seen through the lens of northern indigenous peoples and their beliefs and practices. As Richard notes,

In my lifetime, global population has more than tripled. In 1940 the human population was 2.3 billion; now it’s more than 7.8 billion. We have converted Planet Earth into a goods and services rendering machine. The value of that product has increased from 4.5 to 90 trillion dollars with a three-fold increase in population and a twenty-fold increase in consumption. We are depleting Earth’s environment and its life-support mechanisms. Now that we are digitally empowered to act as a single global community it is imperative we redress our desultory impact on our global home.

ORDER OUR NEWEST ASC CCA PUBLICATION!

OUR STORIES ETCHED IN IVORY / QULIP’YUGUT IKXSIAQTUUMARUAT TUUGAAMI. THE SMITHSONIAN COLLECTIONS OF ENGRAVED DRILL BOWS WITH STORIES FROM THE ARCTIC. Edited by **Amy Phillips-Chan**—Arctic Studies Center, NMNH, Smithsonian Institution. **Contributions to Circumpolar Anthropology Vol. 10.** Washington, DC. 2021. ISBN: 978-0-578-90679-9. **List Price: \$19.95**



Carved drill bows made from walrus tusks illustrating pictorial scenes of human figures hunting, dancing, and travelling, provide unique visual records of 19th century life in western Alaska. Combining history and art, these beautiful objects have been hidden in

Smithsonian storerooms for more than a century. Our Stories Etched in Ivory brings these remarkable ‘story-books’ to life in a richly illustrated and elegantly designed book. The publication combines drill bow stories from the Smithsonian National Museum of Natural History and National Museum of the American Indian with oral histories gathered from 40 contemporary Alaska Native contributors from Point Hope, Kotzebue, Shishmaref, Nome, St. Michael, and Anchorage. Stories of hunting and community life are accompanied by illustrations of cultural heritage objects from the Carrie M. McLain Memorial Museum in Nome, Alaska. A foreword by **Bernadette Y. Alvanna-Stimpfle**, Yaayuk, offers insight into the self-recorded world of walrus ivory carvers while the introductory essay by **Amy Phillips-Chan** draws upon collections studies, oral histories, and written texts to explore drill bow technology and the history of pictorial art in Arctic. The appendices offer detailed information on Smithsonian collectors, a glossary of carving materials, and a visual catalog of heritage objects engraved with pictorial scenes. The final section features a dictionary of almost 100 engraved characters found on drill bows, from animals and objects to legends and activities. *Our Stories Etched in Ivory* prioritizes Indigenous knowledge and language by making space for community members to share their own stories and provides Inupiaq language names for places, animals, and objects. The publication marks a collaboration between the Smithsonian Arctic Studies Center, Carrie M. McLain Memorial Museum, and Bering Strait communities, to return Indigenous knowledge embedded within historical museum objects back to the Arctic.

[See Amy Phillips-Chan’s report on presenting this collaborative publication to the Nome community in our Alaska reports section.]

THE DAWN OF EVERYTHING: A NEW HISTORY OF HUMANITY, by David Graeber and David Wengrow—New York: Farrar, Strauss and Giroux 2021

Reviewed by John Cloud and Elisa Palomino

From the book’s title, the ambition of the authors was vast. The project began when the authors were professors of anthropology and archaeology, respectively, at the London School of Economics and University College, London. As they note:

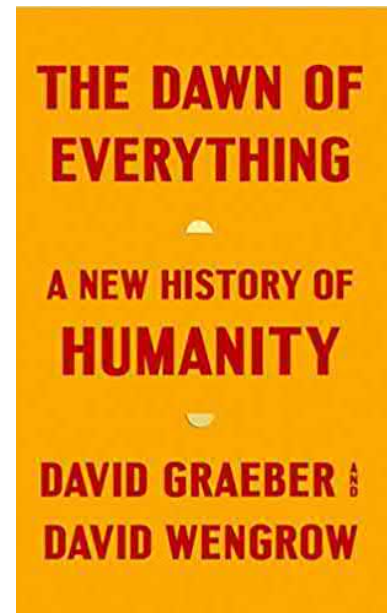
“The research that culminated in this book began almost a decade ago, essentially as a form of play. We pursued it at first, it would be fair to say, in a spirit of mild defiance towards our more ‘serious’ academic

responsibilities. Mainly we were just curious about how the new archaeological evidence that had been building up for the last thirty years might change our notions of early human history, especially the parts bound up with debates on the origins of social inequality”. (p.521)

What eventually emerged was a doorstopper (692 pp.) that attempts to test historical and novel models of human social history against the cascades of recent archaeological research from every continent and a myriad of islands in every ocean. The foundational model they test is at the heart of myths of western civilization: the prehistoric realm of humans living in a ‘state of nature’, a

state of innocence, but somehow, across many cultures that tell the story, that state was contaminated by sin, and innocence was lost. The more benign version of the story descends from **Jean-Jacques Rousseau**, in his “*Discourse on the Origin and the Foundation of Inequality*”, published in 1754. In his telling, all humans were originally hunter-gatherers, living in very small bands, The members were egalitarian, solely because the bands were small enough that they could be egalitarian. There was also a much darker version of the model, particularly associated with Thomas Hobbes’ treatise “*Leviathan*”, published in 1651. Hobbes’ bands were also small, and not at all egalitarians; instead, their lives were: “solitary, poor, nasty, brutish, and short”.

These social models of the Enlightenment developed in parallel with ever expanding European Imperialism. This brought Europeans in contact with a myriad of “others”, and the others had social models of their own. The authors condense and convey much of this encounter in the story of a Wendat (Huron) American philosopher-statemanager, **Kandiaronk**, who travelled extensively in the 1690s as a key strategist of the Wendat Confederacy, a coalition of four Iroquoian-speaking people at the southern end of the Great Lakes. Kandiaronk traveled to Montreal, New York, and Paris, and he had a nuanced take on the societies of Europe. Back in North America, Kandiaronk was a participant



in a series of bicultural salons in Montreal, which also included **Louis-Armand de Lom d'Arce**, Baron de la Hontan, a poor aristocrat who had become fluent in Algonkian and Wendat. Returning to Europe at the turn of the 18th century, **Lahontan** (as he became known) published a series of books on his American adventures. Then he wrote "*Curious Dialogues with a Savage of Good Sense Who Has Travelled*" (1703).

The Savage's name was fictional but was based on the observations of Kandiaronk. It created a sensation across Europe, as a very intelligent and incisive critique of Europeans and their entire social order. Eventually many members of the French Enlightenment published their own critiques, using different "others": **Montesquieu** chose a Persian; **Diderot** a Tahitian; **Chateaubriand** a Natchez; **Voltaire's** L'Ingenu was Wendat and French. In 1747, the Parisian saloniste **Madame de Graffigny** published *Letters of a Peruvian Woman*—France as perceived by a captured Inca princess. It was a feminist landmark, noted by the authors, "in that it may well be the first European novel about a woman which does not end with the protagonist either marrying or dying". (p. 59) Madame de Graffigny, preparing a later revised edition, asked the young economist **A.R.J. Turgot** to suggest changes. He replied that the natural freedom and equality of savages was illusory, as it could happen only when households were self-sufficient and hence all were equally poor. Progress could arise only through selective inequality. Eventually this led to Turgot's four stages of economic development the world over: starting with hunters, then pastoralists, then farming, and finally urban commercial civilization. The impact of Turgot was profound. "In this way, theories of social evolution—now so familiar that we rarely dwell on their origins—first came to be articulated in Europe: as a direct response to the power of indigenous critique." (p. 61)

This is the barest skeleton of the authors' argument, upon which they hang hundreds of pages of examples and analysis, ranging from the Paleolithic to the Anthropocene, in cultures and cultural clashes all over the planet. The writing style is deliberately discursive, and arguments and additions resurface continually. There is much to be extracted from this volume, but it takes work. But we do note that, if you try to buy the book online, you will also find at least a half dozen publications purporting to be briefer summaries of the major arguments.

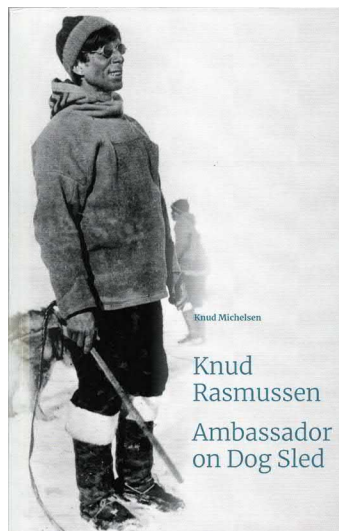
At this point in the review, we note what shows up in the first paragraphs of most reviews so far. Three weeks after the manuscript was finally completed, in 2020, **David Graeber** contracted a pancreatic infection, and within hours he was gone. Graeber was regarded as a leader in the protest movements for

environmental, social, and economic justice and against the downsides of globalization. Graeber had explored how indigenous cultures contributed greatly to the so-called Western ideas of democracy and equality, and how these contributions have been erased from history. The anticipated multiple doorstopper sequels that "the two Davids" planned will never be written—at least by them.

One final example from the extant volume is particularly relevant in this perilous moment in Ukraine. Only in the 1970s did archeologists discover the neolithic "mega-sites" of Ukraine and Moldova, which were occupied from roughly 4,100 to 3,300 BCE. The sites are large rings, almost entirely made of houses, without centralized government buildings or defensive structures or obvious sites for rituals. The large centers of the rings were empty, at least with regard to archaeological remains. Excavation of the houses reveal that people had rich and varied foodwebs, but, as the authors note: "over the eight centuries we find little evidence for warfare or the rise of social elites". (p.294). Several of the mega-sites are now battlefields of the Russian invasion of Ukraine.

KNUD RASMUSSEN: AMBASSADOR ON DOG SLED, by Knud Michelsen—Federation of Danish Associations in Canada, Ottawa, 2021

Reviewed by Igor Krupnik



We have been longing for this publication for quite some time and particularly for its appearance during the centennial of the Fifth Thule Expedition (FTE) of 1921–1924, led by **Knud Rasmussen**. We have partnered with its author, a Danish historian and Rasmussen's great-nephew from Copenhagen, **Knud Michelsen**, since the beginning of our FTE centennial program

in 2017. Michelsen has been a crucial driver of FTE centennial efforts, now in its fifth year, and he contributed to both the FTE centennial session held in Nome in February 2019 and to the collection of its proceedings published in 2021 (see *ASC Newsletter* 2019, 2020). Over the past 15 years, Michelsen has been meticulously researching the life and works of

his famous relative and then duly publishing books covering the subsequent phases of his life and career: his childhood years (Michelsen 2011), his early explorations in Greenland (Michelsen 2014), and later exploits, from the establishment of the Thule station in 1910 to the beginning of the FTE in 1921 (Michelsen 2018). Alas, these wonderfully rich volumes based on careful reading of Rasmussen's letters, diaries, and other written sources were all produced in Danish, making their use by North America readers limited to those with Danish fluency.

Rasmussen is of course a well-known figure to a broad swath of the North American public, thanks to the English translation of his book, *Fra Grønland till Stillehavet* (1925) that was published as *Across Arctic America. Narrative of the Fifth Thule Expedition*, first in 1927 and later, in 1999, as well as to the monumental series, the Reports of the Fifth Thule Expedition. Yet, his many English-language biographies, including the most recent one by **Stephen Bown** (*White Eskimo* 2015) are mostly hagiographies aimed at general readers. Few are based on original research or veer beyond the familiar tropes and images of Rasmussen found in many publications. Having a new English-language overview of Rasmussen's life based on his diaries, letters, and writings is truly a big deal, particularly for this FTE centennial year. We thank Michelsen's Canadian publishers for releasing the book for this occasion.

Michelsen knows his subject perfectly; he also studied various archival sources in many countries, including Denmark, UK, Canada, and the U.S. His narrative of Rasmussen's diverse endeavors is engaging. It flows easily and is illustrated by more than 70 historical photographs from the Danish Arctic Institute, the Danish National Museum, the Royal Library, and the author's personal and family archives. Many images have never been published before; they create a remarkable visual 'portfolio' of Rasmussen in various stages of his illustrious life. Almost a third of the 192-page book is dedicated to the planning and works of the FTE, starting from its very first outlines in the early 1900s through the team's return to Denmark and Greenland in 1924. This book is a highly valuable resource to everyone interested in the FTE origin and its implementation, even if it lacks dozens of academic references and footnotes.

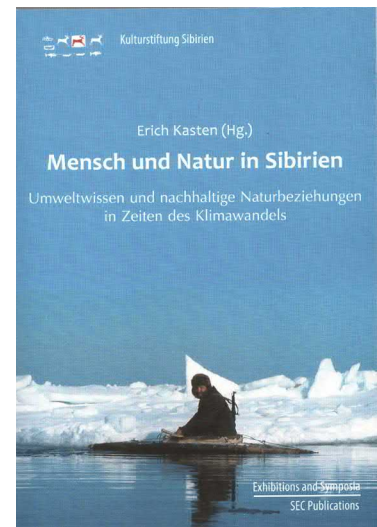
We are looking forward to seeing the next installment in Michelsen's monumental venture, his fourth volume in the series, *Rejsen til det oprindelige folk. Knud Rasmussens 5. Thule-ekspedition* ("The journey to the original people. Knud Rasmussen's 5th Thule expedition") which has been advertised for release by Aarhus University Press (Aarhus Universitetsforlag) in the last months of 2021. This new book is certain to

generate a lot of attention across North America and hopefully will quickly find a publisher for an English translation. We will review it in the next issue of the *ASC Newsletter*. Stay tuned, as Michelsen's journey in the footsteps of his great-uncle and the saga of the Fifth Thule Expedition continue.

MENSCH UND NATUR IN SIBIRIEN (MAN AND NATURE IN SIBERIA), Erich Kasten, ed.—Kulturstiftung Sibirien, 2021

Reviewed by Igor Krupnik

Erich Kasten, our German colleague and a one-person research powerhouse, continues his string of successful publications on ethnology, indigenous cultures, and languages of the people of Siberia and the Arctic. His "Kulturstiftung Sibirien," (Foundation for Siberian Cultures) features an impressive list of books, collected volumes, catalogs, scholarly materials, and CDs on its



website <https://dh-north.org/themen/kulturstiftung-sibirien/en>. Over the past decade, the Foundation launched a slew of publication series. Its *Bibliotheca Kamtschatica* offers reprints of major historical sources on Kamchatka. Another series, *Bibliotheca Sibiropacifica*, produced new English reprints of all Siberian volumes from the Jesup North Pacific Expedition series, including *the Chukchee*, *the Koryak*, *the Yakut*, *the Yukaghir* and *the Yukaghirized Tungus*, with new introductions written by contemporary Siberian scholars. Most of the Foundation's books are published in English and German, but several cultural and language materials for Siberian Indigenous users are produced in Russian.

The volume reviewed here is a German-language collection compiled and edited by Kasten; its full translated title is *Man and Nature in Siberia. Ecological Knowledge and Sustainable Environmental Relations in the Time of Climate Change*. The 330-page book contains 11 chapters (papers) and short Introduction by Kasten. The volume's geography and the spectrum of Siberian Indigenous people it covers is rather broad—from the Nenets in Yamal to the Sakha, Evenk, Even, and the Yukaghir in the Sakha Republic-Yakutia to the

Koryak in Kamchatka, and the Yupik and Chukchi in Chukotka. Several papers address the more general issues of life in Siberia under climate change, from hydrocarbon extraction and trade to ecological blogging on Indigenous social networks. Even more diverse is the list of volume authors—anthropologists, biologists, climatologists, local cultural activists, and subsistence users—who come from Russia, France, Germany, Japan, Finland, and USA, including Indigenous scholars, like **Vyacheslav Shadrin** (Yukaghir), **Semen Gabyshev** (Evenk), and **Vera Solovyeva** (Sakha).

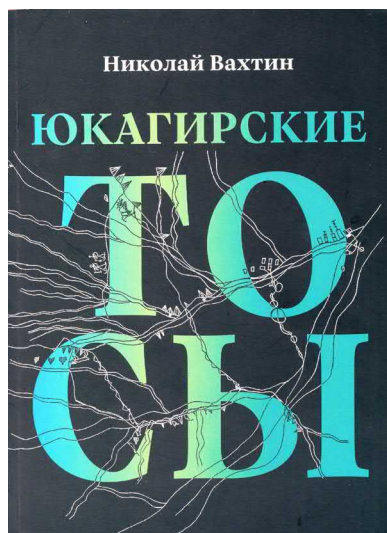
Some volume papers are German translations of the earlier English or Russian publications; but many present new studies of drastic changes observed in Siberian ecosystems, as well as their interpretations and adaptation strategies pursued by local people in several regions of Siberia. Japanese anthropologist **Hiroki Takakura** offers the first-ever assessment of the Sakha people views about extreme floods on the Lena River (with the glossary of 50+ Sakha terms). Yukaghir cultural leader, **Vyacheslav Shadrin** presents a concise overview of the modern Yukaghir interpretations of climate change in their native area, under the striking title, “*Nature Stopped Trusting Us.*” **Alexander Volkovitsky** and **Alexandra Tereokhina**, both from the Labytnangi Research Station in the Yamal-Nenets area, review the new risks to the Yamal Nenets herding economy from the rapidly transforming snow and ice regime. **Vera Solovyeva**, a recent Sakha Ph.D. graduate from George Mason University, introduces her study of the impact of climate change on the Sakha and Even subsistence practices in the Oymyakon ulus (district) of the northeastern Sakha Republic. In his paper about the Koryak perspectives on sustainable reindeer herding and fishing practices, Kasten assesses local knowledge he collected over 25 years among several dozen elders from many Indigenous communities in Kamchatka.

These and other studies in the new collection offer much needed local perspectives on the impact of climate change on Indigenous people across Siberia. The Russian version of the book is due to be released in early 2022; it would be a valuable source to environmentalists, educators, and local cultural activists working across the Siberian regions covered in the volume.

YUKAGIRSKIE TOSY (“THE YUKAGHIR TOS’ES”), by **Nikolai Vakhtin**—European University, St. Petersburg, 2021

Reviewed by Igor Krupnik

This book is a long-awaited study of the Yukaghir *tosy* (plural, sing. *tos*), mysterious pictographic writings or drawings (?) on pieces of birchbark produced by the



Yukaghir, a small aboriginal nation in Northeast Arctic Siberia. The word *tos* literally means ‘birchbark’ in the Yukaghir language, while the drawings are called *shangar shorile* (‘writings on the skin of a tree’). They first became known in 1894–1895; the 30-some existing samples are preserved in various museum collections and have

been published and reprinted numerous times over the past 125 years. The largest sample of these birchbark drawings, 25 altogether, was collected by **Waldemar Jochelson** (1855–1937) during his two major fieldwork periods in Northeast Siberia, on the Russian Sibiriyakov expedition of 1894–1897 and, shortly after, on the Jesup North Pacific Expedition (JNPE) of the American Museum of Natural History in 1900–1902. The JNPE *tosy* ended up in the American Museum collections and were used as illustrations to Jochelson’s famous monograph on the Yukaghir (1926) published under the editorship of **Franz Boas**, the JNPE scientific leader.

Nikolai Vakhtin, Russian linguist and cultural historian at the European University in St. Petersburg and our partner on the *Jesup-2* project in 1992–2003, first encountered the *tosy*, as well as people who could read and produce them 90+ years after Jochelson, during his own fieldwork in the Yukaghir community of Nelemnoe. By that time, the skill of reading and making *tosy* was considered extinct. To Vakhtin’s and his peers’ surprise, one of the local Yukaghir residents named **Vasilii Shalugin** (1934–2002) demonstrated his ability to ‘read’ the *tosy* reproduced in Jochelson’s and other publications and even produced two new ones for the visiting scientists. The memory of that encounter had to wait for 33 years, until Vakhtin turned to his new book, an overview of all the information on the Yukaghir pictographs available in published sources, archival records, and museum collections.

Besides carefully reviewing the existing data on the Yukaghir and their *tosy*, Vakhtin—always a meticulous researcher—offers his analysis of their structure, meaning, main graphic elements (“glossary” of the images), and the full list of all known *tos*-writings in the form of small black-and-white drawings in the Appendix to his book. It was already known from earlier studies

that *tosy* existed in two versions—the ‘male’ ones, mostly graphic representations of hunters’ trips and maps of their subsistence grounds, and the ‘female’ ones that could be compared to pictographic ‘love letters’ drawn by young Yukaghir women to express their feelings to their soul mates and peers. According to Vakhtin’s analysis, these were two different forms of graphic representations; each used their distinctive graphic elements and symbols. He illustrated his arguments by a careful assessment of each element in his ‘glossary’ that can be also viewed as a ‘primer’ to those who attempt to read and understand the meaning of the known *tosy*. His glossary is based on the information received from Shalugin in 1987, as well as on bits and pieces of explanations by earlier explorers and collectors.

Overall, the book delivers a punching message. Not only was the knowledge of the key elements of the *tosy* writing preserved as unique pictographic ‘language’ much longer than it was believed (at least until the passing of Shalugin in 2002), but it turned out to be recoverable for the analysis, classification, and thus for *reproduction* long after the passing of the supposedly last people who knew how to use it. Like an ‘extinct’ language, the skills of the *tosy* reading and writing can be re-learned and recreated as an element of modern Yukaghir cultural heritage even if not as an authentic means of Indigenous communication. The story I heard from Vakhtin after his book was published was that some modern Yukaghir demonstrated their familiarity with the *tosy* drawings, as well as their ability to make such drawings themselves. Those heritage enthusiasts, but also researchers worldwide, will be forever grateful to a professor in St. Petersburg who took upon himself to summarize what has been known about this unique cultural practice and made it available for today’s readers to enjoy and replicate.



Ayngaga (right) interviews Yupik Elder, Beda Shwooko Avalaq in Gambell about the former connections between Chukotka and St. Lawrence Island Yupik. May 1999. Photo by Igor Krupnik

TRANSITIONS

LYUDMILA AINANA, YUPIK EDUCATOR AND ACTIVIST (1934–2021)

By Igor Krupnik

Lyudmila Ainana, renown Russian Yupik educator, cultural and political activist, and keeper of the Siberian Yupik knowledge and language traditions passed away on July 2, 2021, in her home town of Provideniya in Chukotka, Russia. She was 86. Ainana—widely known by her Yupik name *Aynganga*—was the founder and the first president of the first-ever Siberian Yupik civic organization called “The Yupik Society” (1990–1999), until it was closed by the decree of the area authorities. She spent most of her childhood years in a small Yupik hamlet, a hunting camp near Cape Chaplin, and in the large Yupik community of Ungaziq. Without knowing a single word of Russian, she entered the village school at Ungaziq, where most classes were taught by Russian teachers, then the boarding school at the Russian area hub of Provideniya. A dedicated and gifted student, she moved on to attend five-year training at the Hertenzen’s Pedagogical Institute in Leningrad (now St. Petersburg), the most prestigious Soviet teaching hub for Indigenous educators and cultural workers from across Siberia.

After graduation, Aynganga taught at several local schools in Chukotka before joining the staff of the Russian Institute ‘of the national issues in education,’ a rather cryptic title for an agency tasked to develop school curricula and teaching materials for myriad schools with non-Russian students across the former Soviet Union. For 15 years, she composed Yupik primers and language curricula, together with her few educated Yupik peers, until her life shifted dramatically with the advent of the so-called perestroika (restructuring) movement in the late 1980s. Following the founding meeting of the “Yupik Society” in Provideniya in August 1990 (which I attended), she never returned to her schoolwork, even though she always kept her passion for the Yupik language, literacy, and printed materials.

Aynganga’s ‘second life’ as a Yupik intellectual, political, and cultural leader, eventually the leader of her small nation lasted for 30 years. Since the 1960s, she interacted with almost every researcher who studied culture, language, and ecological knowledge of her native Siberian Yupik, including linguists **Georgii Menovshchikov**, **Nikolai Vakhtin** and **Michael Krauss**, archaeologists **Sergei Arutyunov** and **Michael Bronshtein**, biologists **Lyudmila**

Bogoslovskaya, Igor Zagrebin, and Tom Albert, and ethnologists like **Michael Chlenov, Dmitrii Oparin,** and myself. Her exceptional role as a partner and knowledge expert was in her ability to personally relate to the many ‘cultural layers’ of her complex international network of Indigenous activists, more traditionally oriented Yupik hunters and Elders, as well as academics, journalists, and public figures of all stripes. Yet she remained a researcher herself, a thoughtful person, insightful about the mission of science in documenting and assisting Indigenous people in the preservation of their languages, cultures, and oral traditions.

I met Aynghanga and worked with her on my first fieldwork among the Yupik of Chukotka in 1975; but our most extended partnership took place in 1998-2002 during the NSF-funded project on Beringia (St. Lawrence Island-Siberian Yupik) heritage documentation. It brought us together to the Yupik communities of Gambell and Savoonga on St. Lawrence Island in spring 1999. She was a remarkable cultural interpreter and mediator, a passionate speaker, with deep knowledge of her native culture and language but eager to explore new venues to benefit her people, like agency-funded environmental monitoring, heritage and language documentation, community surveys, hunters’ observation of marine mammals, and much more. In her boundless energy and resourcefulness, she was the ‘army of one’ and the power to recon with. Her many friends mourn her passing; but it is an irrecoverable loss to her Yupik nation of 1800 people and to a small crop of Indigenous intellectuals across Siberia.

ROBERT PETERSEN (1928–2021)

By Igor Krupnik

Robert Karl Frederik Petersen, Greenlandic Inuit scholar, dialectologist, anthropologist, and the first rector of the Ilisimatusarfik, the University of Greenland, passed away on October 24, 2021. He was 93. Robert was born in the town of Maniitsoq, formerly Sukkertoppen in West Greenland (Kitaa) and was trained as a schoolteacher at the Greenland seminary in Nuuk (Ilinniarsissuaq) and then in Denmark. In 1954–1956 he taught at the same seminary but then changed his course to become a Greenlandic historian and, later, linguist and anthropologist. In 1967 he received the M.A degree at the University of Copenhagen, where he continued teaching Eskimo/Inuit language, history, and literature, and in 1975 he ascended to the position of professor of Eskimology at the same university, the first Greenlander to hold a professorship. With the establishment of Ilisimatusarfik (University of



*Robert Petersen at home in Odense, May 2013.
Photo by Igor Krupnik*

Greenland), originally as the Inuit Institute, he moved to Nuuk to become its first Director (1983) and then its first Rector (1987), until his retirement in 1995. He spent his last years in the city of Odense in Denmark.

Behind his quiet and humble appearance, was a man of remarkable scholarly prowess, who was universally admired by his many Greenlandic and Danish colleagues and students, as well as by Arctic scholars worldwide. He published numerous papers and several books, including *Subsistence Hunting: the Greenland Case* (1982) and *Settlements, Kinship and Hunting Grounds in Traditional Greenland: A Comparative Study of Local Experiences from Upernavik and Ammassalik* (2003). He conducted research in many areas in Greenland, also in Arctic Canada, and he was an internationally recognized authority on Greenlandic Inuit (Kalallit) history, literacy, orthography of the Greenlandic language (Kalallisut), cultural development, and Indigenous education. He received numerous awards, including an honorary doctorate from the Université Laval (1992) and Ilisimatusarfik (2010), the Greenland Culture Award (1993), and was elected to the Royal Gustavus Adolphus Academy for Swedish Folk Culture.

Although Robert did not participate in ASC activities, we knew him well and interacted regularly at many Arctic venues. He was the only Inuit contributor to the *Handbook of North American Indians* “Arctic” volume (Damas 1984), for which he authored four chapters: East Greenland Before 1950; East Greenland After 1950; Greenlandic Written Literature; and The Pan-Eskimo Movement. Sixty-five years prior to our Fifth Thule Expedition (FTE) centennial venue, he went with the **H.J. Rink** Expedition of 1956 to Baffin Island, on the first organized exchange

between Greenlandic and Canadian Inuit, and in 1957 he worked on an archaeological survey in Igloolik with **Jørgen Meldgaard**, thus re-tracking the FTE routes. In 1979, he published an overview of the FTE activities in a special issue of the journal *Inuktitut* dedicated to **Knud Rasmussen** that appeared in three languages—English, Greenlandic, and Canadian Inuktitut.

I first met Robert at the 6th Inuit Studies Conference in Copenhagen in 1988, then at the 7th conference in Fairbanks, where the International Arctic Social Sciences Association (IASSA) was born. At the IASSA 6th congress in Nuuk in summer 2008, Petersen received the association's highest lifetime award, together with **Tiger Burch** and **Ludger Müller-Wille**. I last saw Robert in May 2013, when I traveled to visit with him in his residence in Odense and to talk about his work with Tiger Burch in 1982 on the map of traditional Inuit 'societies' in Greenland in the early 1800s. That story, together with a more focused overview of Robert's many contributions by **Søren Thuesen**, were published in our collection volume, *Early Inuit Studies. Themes and Transitions, 1850s–1980s* (Krupnik 2016), where Robert's name is cited in almost every chapter. He will be missed by his many international colleagues, but even more so by his people in Greenland, to whom he dedicated his illustrious life.

TATIANA P. ROON (1961–2021)*

By Bruce Grant and Anna Sirina



Scholars of Siberian ethnography and history of the Russian Far East mourn a friend and colleague, **Dr. Tatiana Roon**, who passed away in June 2021, just one month shy of her sixtieth birthday. Born in 1961 in the Soviet port town of Kholmsk

on Sakhalin Island, just north of Japan, she went on to become one of the leading anthropologists of contemporary Indigenous life in the country's eastern reaches, as well as one of its most prominent museum leaders.

Roon received her B.S. degree in history and anthropology in 1986 from Leningrad University's Department of Ethnography, then returned to Sakhalin to take up lecturing at the local Pedagogical Institute

in the regional hub, the city of Yuzhno-Sakhalinsk. In 1988 she joined the staff of the Sakhalin Regional Museum, eventually serving as its director from 2003 to 2015. While leading that institution, she traveled widely to advance the museum's collections, building a dynamic and robust international network. She modernized the museum's physical space in a landmark building erected by the Japanese in the 1930s, upgraded its collections, and founded an open-air ethnographic museum on its territory. Prior to serving as director, she spent a postdoctoral year at the American Museum of Natural History in New York, working closely with the collections from the Jesup North Pacific Expedition from a century earlier.

An avid fieldworker, Roon's regular and collaborative engagements with the Sakhalin Indigenous Uil'ta (Orok) people led to her most prominent Russian-language work, *The Uil'ta of Sakhalin: An Ethnohistorical Study of Traditional Economy and Material Culture* (1996). That book served as the basis for her (full) doctoral dissertation in 1997. She followed in 2010 with a broader monograph on Indigenous life across Sakhalin and the Kuril Islands, together with essays on the history of Russian and Soviet anthropology. These were among her many articles, translations, edited volumes, and a coauthored Russian-Uil'ta dictionary that reflected the very best of the longstanding Russian fieldwork tradition. From 2001 onwards, she gave her time generously to coordinate negotiations between Indigenous communities in the face of Sakhalin's vast oil development. She is already much missed.

[Igor Krupnik]: We knew Tatiana Roon from many joint meetings in the 1990s and 2000s, when ASC scholars worked with their Russian partners on the *Jesup-2* program (1992–2002) and on the *Mini-Crossroads* traveling venues in four cities of the Russian Far East in 1996–1997. In 2000, Roon visited the Smithsonian National Museum of Natural History and studied our ethnographic collections from the Russian Pacific region and also historical photo collections, including the now famous Sakhalin Ainu photographs taken by Polish anthropologist **Bronislaw Pilsudski** in the early 1900s, now at the National Anthropological Archives (NAA). Her Russian paper on these collections published in 2000 remains the sole assessment of substantial ethnographic holdings at NMNH from this part of the world.

*Adapted with authors' permission from: Grant, Bruce and Anna Sirina. 2022. "Tatiana Petrovna Roon." *Anthropology News* website, March 2, 2022. <https://www.anthropology-news.org/articles/tatiana-petrovna-roon/>

JACQUES CINQ-MARS (1942–2021)



[Ed. note. This piece is adapted from CBC News Dec. 7, 2021. **Jacques Cinq-Mars** was one of the first Canadian archaeologists to question the “Clovis First” dogma that dominated North American archaeology until the 1970s, when he, **Dennis Stanford, Robson Bonnichson**, and others

began to argue for pre-Clovis. His work followed in the footsteps of **Richard MacNeish**, famous for his Engigstciak Yukon research, and his University of Toronto mentor, **Bill Irving**. Controversy still exists about whether the bones he found record human activity. Jacques’ son **Eric** contributed to this profile.]

Jacques Cinq-Mars was a man known for his research in some of the more remote parts of the Yukon, where he found evidence of humans in Yukon's Bluefish Caves indicating that human beings set foot in North America much earlier than originally thought, possibly as early as 24,000 years ago, twice as old as the accepted age.

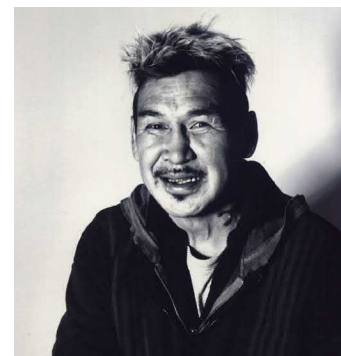
Cinq-Mars worked for the Canadian Museum of History and began his many research trips in the Old Crow area beginning in the early 1970s. That's when Elder **William Josie** of the Vuntut Gwitchin First Nation in Old Crow, Yukon, first met him. Josie was around 12 or 13 years old at the time. Josie said Cinq-Mars got along well with the locals he met and that his research helped his community's land claim negotiations. “It really helped us, you know,” he said. “Our people, we took less money for more land, and that means a lot to us. And, you know, the elders of that time said, we won't regret it. And we definitely don't today.” Josie described him as a “very passionate guy...He sort of took us under his wing and he taught us a lot. I really appreciate that.”

A colleague of Cinq-Mars, Yukon archaeologist **Ruth Gotthardt**, said she first met Cinq-Mars in 1975, while she was an undergraduate at the University of Toronto. Cinq-Mars and Bill Irving had just started up the Northern Yukon Research Program. Gotthardt said she wasn't surprised when Cinq-Mars announced the findings at Bluefish dated to 24,000 years ago. “We were all thinking, this is really worth entertaining that human beings came not after the last ice age, but you know, during the last ice age at some point, and we figured, well, why not?...He had the kind of scholarly energy that encourages others to do research and expand the research, that's what I remember about him.”

FLOYD KUPTANA (1964–2021)

By Richard D. Mohr

Carver, painter, and collage artist, **Floyd Kuptana**, 57, died on the streets of Toronto in the early hours of May 27, 2021. His social worker with Toronto's Street Survivors Program reports that the police say they found no evidence of violence or suspicious activity. His current gallerist reported that he had been drinking more heavily than usual the last few days. He was often in and out of hospitals, police vans, and rehab centers. He was known to have heart problems. His life and art were as unusual and untidy as they were intense.



He was born in 1964 at the Cape Parry DEW Line station, where, in 1959, the settlement of Paulatuk, NWT, moved lock, stock, and priest for a decade. His father worked at the station; his mother taught English in the hamlet school. English was spoken in the home. His ancestors were Yupik and Inupiat who had move east from Alaska in the late 19th century with the last vestiges of the whaling industry.

Born into a family of carvers, he was carving on his own as early as 1991. He displayed carvings in Toronto in 1993, before moving there for good in 1996. In an interview with Toronto's ‘That Channel’, he reported the reason he moved south was to avoid family violence. He was raped by a family member and had also been abused in the Catholic residential school in Inuvik. His relations with friends, gallerist, and ‘saviors’ were often fraught. Though many people were repulsed by him and his work, others loved him, but he found that difficult to register. His social worker reports sadly that “He was never given an opportunity to be loved or show affection to himself.” Still, he was prolific.

In spring 2008 he snagged the cover of *Inuit Art Quarterly* as part of a portfolio presentation of his carvings to date—an unsettling mix of whimsy and horror. His carving can be found at the Museum Cerny in Bern, Switzerland. In 2010, he began a long but rocky association, as a satellite artist, with Toronto's noncommercial Gallery Arcturus, which would always provide him coffee, food, and a few bucks, and, if he showed up at least partially sober, studio space. There, that year, while continuing to carve, he began painting in acrylics. In 2012, he added collage to his toolkit.

Many of the two-dimensional works move into the realm of the uncanny and the grotesque, a realm made all the more disconcerting with brash colors and allusions to pop culture and art history. **Van Gogh** was his favorite artist, as much for that artist's life as his works. Kuptana's own graphic work seamlessly fused traditional Inuit themes of shamanistic transformation with graphic techniques of the cubists. Both his life and work bear strong family resemblances to Outsider Art and artists.

The paintings and collages were gradually beginning to gain critical recognition, with articles on them appearing in *Inuit Art Quarterly* (Toronto), *The Outsider* (Chicago) and *Kolaj* (Montreal). He is survived by three famous cousins, all also urban Inuit carvers: **Bill Nasogaluak**; **Abraham Anghik Ruben**, OC; and **David Ruben Piqtoukun**, Kuptana's principal mentor.

Kuptana would often go panhandling outside five-star hotels in Toronto, even when he didn't need the money. **Eron Boyd**, Gallery Arcturus' manager, says that Kuptana called it "urban hunting."

EDITH DIETZ, SMITHSONIAN CONSERVATOR (1924–2022)

By *The Dietz Family, Michele Austin-Dennehy, and David Rosenthal*



Beloved Mother, Granny, Aunt, and **Friend Editha "Edith" Sophia Maria Piesch Dietze** passed away

March 3, 2022, at age 97. Born on July 6, 1924, in Bielsko-Biala, Poland (formerly Bielitz), Edith was the

epitome of the Greatest Generation. A life-long lover of learning, she began her education at the Catholic school of the Cathedral of St. Nicholas in her small Polish town. Her tendency towards mischief resulted in her dismissal from French class after an incident involving a spitball and a nun.

The onset of World War II changed the trajectory of her life forever. At 17, she became a nurse for the International Red Cross and worked in field hospitals throughout Poland. The oldest of four siblings, at the end of the war she had no idea of her family's fate. She was able to escape the Russian invasion of Poland, but later found out that her father perished in a Russian gulag in Siberia. She traveled alone to Munich where

she enrolled in nursing school through the Bavarian Red Cross. She met and fell in love with Dr. **Claus Jochen Dietze** at the hospital where they both worked. They were married in Munich in 1949 and gave birth to their first son, Holger, in 1950.

In 1952, they emigrated to Norfolk, Virginia. Edith learned to speak English by going to the same movies over and over. She gave birth to twins, **Ralph** and **Monika Dietze**, in 1954 in Mt. Pleasant, Iowa. Soon after, they moved to Winchester, Massachusetts, where she combined her love of people and entertaining to start a cooking class at the International Student Center in Cambridge. They finally settled in Vienna, Virginia, where they raised their family. Edith was passionate about ancient history and art, and in 1966 she began taking classes at the Corcoran School of Art in Washington D.C.

She graduated from George Washington University with a master's in Museum Studies in 1978 at age 54. Inspired by the Smithsonian's **Carolyn Rose**, who modernized Anthropology's Conservation Laboratory, she then began an illustrious 30-year career as a conservator at the Smithsonian National Museum of Natural History (NMNH). Edith spent a summer in Siena, Italy, working on Etruscan material. She supported the conservation of ceramics from **Gus Van Beek's** Tell Jemmeh, Syria. In 1976, along with other staff and volunteers, she conserved a 6 x 9 foot polychrome floor mosaic from a first century Carthaginian temple that was severely damaged during moving. The conservation began in June, 1976, and took more than 16 months. Edith also did field work conserving mosaics in Carthage with **Margaret Alexander**. While at NMNH, she worked on exhibitions including *Magnificent Voyagers: The US Exploring Expedition* (1985), *Crossroads of Continents: Cultures of Siberia and Alaska* (1996), *Ainu: Spirit of a Northern People* (1999), *Vikings: The North Atlantic Saga* (2000), *Hawaiian Treasures: Celebrating the Indigenous Peoples of Hawaii* (2004). She also conserved many Egyptian objects including a full-sized bull mummy. Edith worked on many NMNH exhibit hall projects and SITES traveling exhibits over the years helping to bring conservation into the consciousness of NMNH staff—all of which she did with intelligence and unbounded wit. You did not leave a conversation with Edith without a smile on your face!

Edith Dietze was resilient, poised, and one-of-a-kind. She had an insatiable enthusiasm for knowledge and learning. Her surviving family will miss her and her unwavering sense of humor. She was an inspiration to all. Her extraordinary life will forever be cherished by her family.

SERGEI SEROTETTO: REINDEER NOMADISM AS PROFESSION, LIFESTYLE, PASSION AND LOVE (1954–2021)



By Florian Stammler

The news coming from Arctic Russia was a shock: It was last year when we celebrated **Sergei Serotetto's** 66th birthday in his nomadic camp in the Yamal Peninsula, surrounded by his family of three generations. Sergei,

who unexpectedly passed away in May 2021 was one of the best-known Nenets reindeer herders in the former Soviet Union, in post-Soviet Russia, and maybe across the Arctic. He was once among the very few herders invited to the All-union congress of the Communist Party, but he declined. He let the Communist bosses know that he was too busy herding his reindeer. A decade later, he was among the first Indigenous herders who hosted international visitors, including the Smithsonian-led team of **Bill Fitzhugh, Sven Haakanson, Andrey Golovnev, Natalya Fedorova**, and others. He became known worldwide thanks to the beautiful photographs taken by famous Arctic photographer **Bryan Alexander**. He was at the founding congress of the World Reindeer Herders Association in Nadym, Russia in 1998 and, in his active position within the Association travelled to many other reindeer herding areas across the Eurasian Arctic, including in Russia, Finland, Sweden, and Norway.

As an 'exemplary Arctic herder,' Sergei also turned into a TV star. A joint Irish and the National Geographic documentary, with him as a principal character won the "Spirit of the Festival Award" at the *Celtic Film Festival* in 2003. In 2006, I chose him and his family as the ambassadors of the Arctic nomadic way of life for the BBC/Discovery series *Tribe* that was watched by more than 40 million people worldwide. Intellectually, Sergei shaped research and careers of many a scholar of his native Yamal Nenets people, and thus made a significant impact on studies of nomadic pastoralism, Arctic indigenous people, and Arctic anthropology, in general. The doctoral theses by Andrei Golovnev, Sven Haakanson, myself, **Ellen Inga Turi, Roza Laptander**, and others would have never been as rich in detail if not for the input from Sergei and his family. He was a great supporter of our research, both practically by hosting many of us in his nomadic camp, and theoretically via rich and insightful conversations, and sharing his wisdom in narratives that helped make Nenets culture understandable to the non-Nenets visitors.

I guess his principal motivation for such openness to outsiders was his curiosity for the world, his intellectual drive to learn about different environments and people, in combination with his personal warmth and a never-ending hospitality. He also thought that a positive publicity about the Nenets way of life would help make the case for preserving Nenets reindeer nomadism amid active industrial development of his home Yamal area. As a professional, he always maintained that everyone should attend to the job one did best and thus was reluctant to serve as a co-author on scholarly publications even when invited. "You can do that writing and I am good at reindeer herding." And he was so good at his professional job! For decades, he has been the head of the world's largest reindeer herding team, the Yar-Sale herding 'brigade' No.8 that included a camp of 8 nomadic tents (*chums*) and up to 8,000 reindeer in peak years.

Sergei was convinced that a combination of traditional tundra skills acquired by a living teaching by wise Elders and formal education in town was the right mix needed to lead a successful nomadic way of life. He continued to pursue this approach for his own children and grandchildren. In his large extended family, all children are well educated, including his son Lev, a certified veterinarian, who now inherits the big herd and his father's camp. Those of us honored by his friendship may confirm that in his family you would never feel that the Nenets nomadic life would ever cease. Sergei has taught his extended family how to weather almost any adverse effects—be it icing of the tundra pastures, industrialization, political change, reindeer disease, or social pressure.

In this way, Sergei Serotetto also made a lasting contribution to deconstructing the image of 'marginalized' and 'vulnerable' Indigenous people, the perceived victims of external stressors, such as climate change, oil and gas development or new Russian state capitalism. Staying with his family, joining it on its nomadic routes, and listening to Sergei's stories offered a very different narrative, one of enthusiasm, passion, love for this way of life, toughness and stamina, but also of wisdom to change things that you can and accept those you cannot. Sergei was buried at his clan cemetery in the Yamal tundra. His departure is a big loss for the Nenets reindeer nomadism, the scholarly community interested in Yamal, but first and foremost for his extended family. May Sergei's energy and spirit live on through them in continuing his legacy.

[Adapted from 'Arctic Anthropology' [website](#); See also *Arctic* 2021 74(3):405-6]

2021 ASC STAFF PUBLICATIONS

Crowell, Aron L.

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