

NOTES FROM THE DIRECTOR

By William Fitzhugh

Last spring, in a weak moment, I agreed to teach a course on the Arctic to Dartmouth College undergraduates. Two weeks into it, I have new respect for my teaching colleagues who manage to juggle instruction and administration and find time to attend the myriad lectures, seminars, and job interviews that make campus life a metropolitan experience, even in Hanover, and at the same time write grant proposals and papers. Last week a post-doc's dry-run talk for an up-coming job interview turned into a high-test seminar on anthropological theory. Halls buzz with conversation, and parades of artists, government officials, and foreign scholars crisscross the campus. Baker-Berry Library—crammed with coffee-charged students—is the heartbeat of the campus.

By these standards, a museum can seem a bit quiet. Instead of students we have interns and a few fellows, and while we have colloquia and museum gatherings, life in a research museum like the Smithsonian is truly an ivory tower—quiet, long empty corridors, few people—until you get to the public exhibit floors. Over the long haul, having a full year, we conduct more field research, produce more papers, and arguably advance our disciplines more than the average professor. But

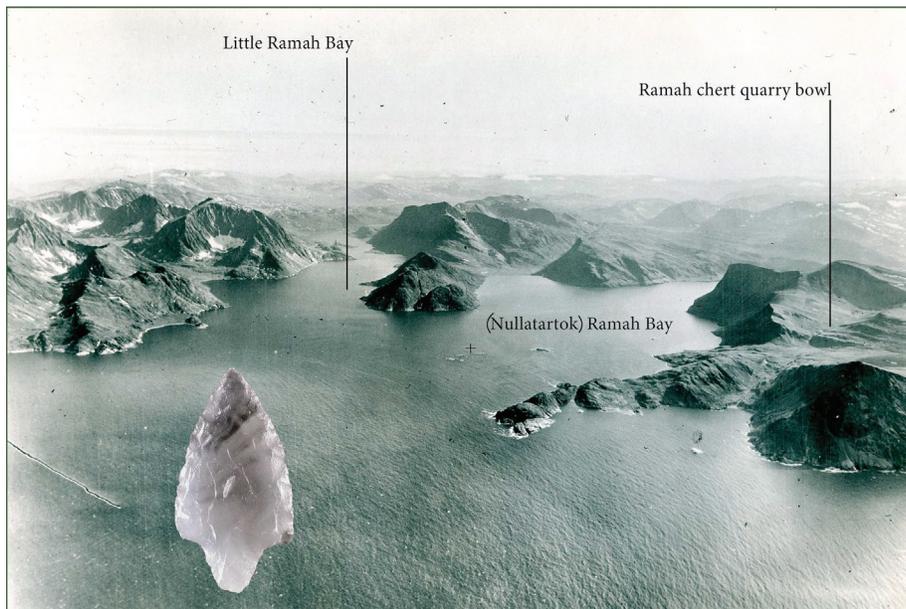
the price paid is the absence of young minds constantly asking difficult “why?” questions—answers we museum types often bypass on our journeys of observation and documentation; museum scientists are more likely to produce monographs than ground-breaking syntheses. Perhaps the solution is to live in both worlds simultaneously.

Reveries aside, the close of 2014 brings the ASC to a watershed.

As of this writing, we await a museum decision to extend core financial support for our program for several years—support that was once provided by the congressional “line item” that created and funded the Center in 1988. Interim support from museum trust funds carried us for a few years but ended with the budget

sequester of FY2013. Grants and private funds have enabled us to continue research and publication, but without core office and travel support our capabilities have been restricted. The recently received **Ernest Burch Endowment** helps but is for research and education, not administration and infrastructure.

Despite uncertainty, the year has been productive on many fronts. The ASC received a major grant from the SI's Grand Challenge Program to study the impact and causes of “Arctic crashes,” the sometimes abrupt

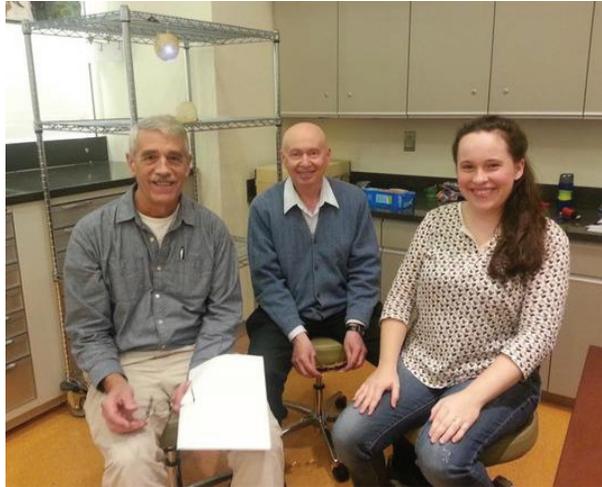


An Arctic Omphalos: Ramah Bay. Arguably one of the most significant landscapes of the Eastern Arctic, the Ramah Bay quarry sites were the source for the stone to fashion tools used by ancestral Indian and Paleoeskimo peoples for thousands of years throughout the Far Northeast and beyond. In January this year Canadian Minister of the Environment, Leona Aglukkaq designated the site as a national historic site of Canada. (See article p. 19) (Photo credit: Forbes Expedition, 1932 (Morse-ASC photo archives); Tshiash Innu Ramah chert projectile point from Mistetuet, Ntessinan.)

population changes that many animals undergo due to a complex reactions to changes in climate and ecology, predation (including human), and internal factors. The project has engaged the entire ASC staff as well as colleagues in several NMNH biological departments in field and collection studies of harp and ring seals, walruses, whales, and caribou. Preliminary results were offered at a full-day symposium at the 2015 spring meeting of the Alaska Anthropological Association organized by **Aron Crowell** and **Igor Krupnik**.

The summer of 2014 saw the usual fieldwork exodus. **Aron Crowell** had another productive NSF-sponsored field season working with an interdisciplinary team including Tlingit elders on Yakutat Bay archaeology, climate, and oral history, and has a fine documentary in the works. **Stephen Loring** received funds from the SI Arts and Humanities research program and returned to northern Quebec in September to research Innu caribou adaptations and prehistory. The digging included a fair bit of snow and ended with an exciting lesson on how to get a small plane in the air from an esker strip too short for a runway. Stephen's contributions to the study of the northern Labrador Ramah chert quarries received recognition by a Canadian National Historic site designation. Meanwhile **Igor** remained in DC writing new grants and 'tending the shop' while **Bill** split his time between fieldwork with the Nunatsiavut (Labrador Inuit) archaeologists in Labrador's Hamilton Inlet Narrows region and excavations at the 17th C. Hart Chalet Inuit site in Brador (Blanc Sablon), Quebec.

Our major outreach activity this year has been collection-based workshops produced by **Aron Crowell** and **Dawn Biddeson** in Anchorage. Their fall gutskin program, conducted in collaboration with NMNH's Q?rius Education Office, brought together Alaskan Yup'ik gutskin seamstresses and artists and DC high school students real-time via the internet, and included a talk by **Igor**. The entire program was live tweeted by



Bill Fitzhugh, Igor Krupnik and Meghan Mulkerin at the Q?rius Gutskin workshop at NMNH on December 2, 2014.



Arctic Spring Festival poster. Photo: Wilfred Richard, ASC Research Collaborator.

Meghan Mulkerin on the @ArcticStudies Twitter account. Among the many outstanding students who worked with us in 2014 was NHRE intern **Christine DeMyers** of the University of Texas, Austin, who compared the collapse of Norse Greenland and modern issues of food security in northwest Alaska.

This year has seen major involvement with U.S. interagency work on the newly promulgated Arctic Research Plan produced by the Interagency Research

Policy Committee (IARPC) and the State Department's Arctic Policy Group (APG). **Igor, Bill, Sara Bowden, and Roberto Delgado** have been helping the IARPC Arctic Communities Coordinating Team meet plan milestones on community sustainability in the case of Arctic change. As part of its educational outreach, the team organized educational webinars on food security and language preservation. We have also been deeply involved with preparations for the U.S. Chairmanship (2015-2017) of the Arctic Council, which begins in April 2015. Supporting that effort, we have organized an "Arctic Spring" festival (May 8-10) to launch the US Arctic Chair era with an educational weekend of symposia, cultural performances, family activities, films, and displays of scientific projects and agency programs.

As for staff, after almost three years of untiring and cheerful 'can-do' assistance, we lost **Laura Fleming Sharp** to an administrative position in the Museum's Recovering Voices Program. While we will miss Laura (she is still only two doors down the hall!), we have been fortunate to find a replacement in **Meghan Mulkerin**, a seasoned master of the internet and Anthropology Department who will move us into a domain we have previously neglected—the blogosphere.

We hope you enjoy more detailed stories in our review of the past year's ASC activities. You can follow our current work online, using Twitter @ArcticStudies and on our blog, *Magnetic North*.

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Uummannaq Children's Home performs in the Rotunda of the National Museum of Natural History during the Arctic Spring Festival, May 9, 2015. Photo: James Di Loreto.

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The Danish Embassy hosted a reception to celebrate the Arctic Spring Festival, May 8, 2015. Left to Right: Ann Andreasen, Minister Plenipotentiary for Greenland Inuuteq Holm Olsen, Ambassador Lars Bo Møller, René Kristensen. Photo: Wilfred Richard.

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**THE YAKUTAT SEAL CAMPS PROJECT 2014:
EXCAVATIONS AT AN A.D. 1200 SEALING
CAMP**

By: Aron L. Crowell

Arctic Studies Center excavations at one of Yakutat Bay's oldest archaeological sites have yielded Late Period Eyak artifacts and rich cultural information that accords with oral tradition. Investigations at the Spoon Lake 3 site (YAK-076) in Wrangell-St. Elias National Park were conducted during July – August 2014 as part of the Smithsonian's Yakutat Seal Camps Project. The Yakutat Tlingit Tribe, Sealaska Corporation, and National Park Service collaborated to authorize the research, which was sponsored by the National Science Foundation and National Park Foundation.

The Spoon Lake 3 settlement (named for a nearby kettle pond and stream) is situated in coastal spruce-hemlock forest near Point Manby at the northern entrance to Yakutat Bay, an area that is remembered in Yakutat oral tradition as the oldest seal hunting place. About 800 years ago when the settlement was built a massive late Holocene glacier stood close by. Harbor seals would have congregated in floating ice at the glacial front, and proximity to these animals explains the attraction of the locale. Because the ocean beach near Spoon Lake has been accreting sediment and building outward over the centuries, the site was formerly much closer to salt water than it is today. It was surrounded by open sand beach instead of the present forest, in which none of the trees are more than about 250 years old.

The Spoon Lake people were probably Eyak-speaking members of the extinct Yinyeidi and Hmyeidi clans, who lived and hunted in the Yakutat area before Ahtna and Tlingit groups arrived in later centuries. Eyak territory was once extensive along the southeastern Alaskan coast from the Copper River and eastern Prince William Sound to Yakutat Bay and beyond. Several

other sites of this period, discovered by **Frederica de Laguna** and excavated by U.S. Forest Service archaeologist **Stan Davis**, are located across the bay along Lost River on the Yakutat Foreland.

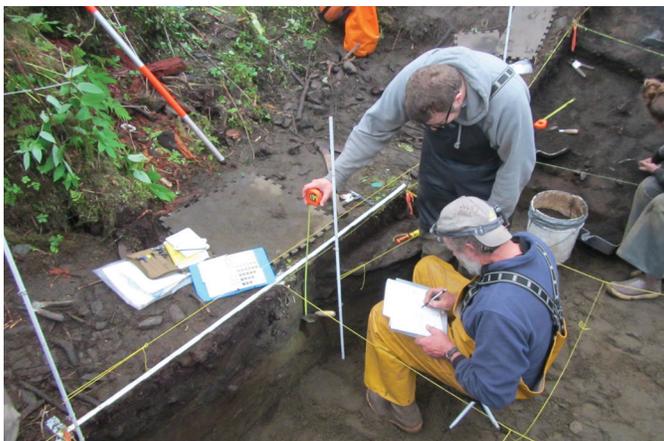
A traditional story that Frederica de Laguna recorded at Yakutat may date to the period when the Spoon River 3 site was occupied. It tells of a hollow tree near

Point Manby where travelers could go inside to listen for the sounds of approaching storms before attempting the perilous canoe journey across the bay in front of the towering glacier.

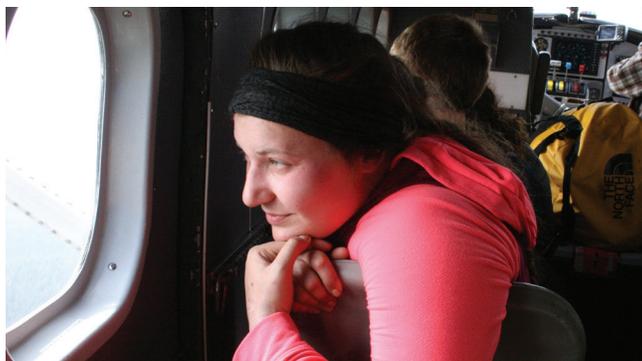
The Spoon Lake 3 site, which was discovered during a Smithsonian-National Park Service survey in 1995, consists of a deep winter house pit surrounded by food storage caches and two shallower depressions that appear to have been semi-subterranean summer houses. Excavations in 2014 focused on Structure 1, one of the summer dwellings, and on the adjacent midden. The house pit was oval, measuring 6 m long, 4 m wide and 1 m deep. A central hearth was found deep in the sandy, charcoal-stained house fill, encircled by an earthen sleeping bench on which smaller smudge fires had been built. Because no internal postholes or roof sod layer were found the

structure could have been covered by a lightweight pole and bark roof. This type of construction and the pattern of fireplaces inside correspond with ethnographic descriptions of the traditional Northwest Coast "smokehouse," in which people lived and where meat and fish were hung on racks near the ceiling to cure. Similar smokehouses were used at Yakutat seal camps even into the 19th century. A large stone slab found on the sleeping bench inside Structure 1 may have served as a cutting table or seat.

Virtually no animal bone was preserved at the site to confirm the diet of the occupants, but stone tools found on the bench and floor of the house suggest that meat and skin processing activities were conducted inside.



Aron Crowell and Pierce Bateman recording soil strata inside the Structure 1 smokehouse at the Spoon Lake 3 site. Photo by Mark Luttrell.



Hillary Hogue on Yakutat Coastal Air's Otter on the way to Spoon River base camp. Photo by Pierce Bateman.

Of unusual interest were tiny chert microblades (small knives) struck from flake-cores, a tool type that has been rarely reported for southeastern Alaska and never for such a late pre-contact time period. Two sharp, miniscule chert awls may have been used to punch thread-holes in skins for sewing. Sharp, slender, ground slate blades (all broken) were probably dart or arrow points used in sea mammal hunting; and numerous cobble spall tools were for scraping seal hides or other skins. A hammer stone and double-ended slate chisel for fine woodworking completed the assemblage.

The Spoon Lake 3 site gives us a glimpse of some of the first people to come to the Yakutat area at the end of the Neoglacial period, as the combined mass of Hubbard and Malaspina glaciers began to recede and the bay reopened for human settlement. The site's layout, architecture, and tools suggest a year-round Eyak camp for a small lineage group of perhaps 10 – 12 people. Summer activities focused on coastal hunting and fishing, with an emphasis on harvesting harbor seals at the nearby ice floe rookery. A wide range of subsistence foods, from smoked seal meat and oil to dried fish and berries, would have been preserved and stored in bark-layered cache pits surrounding the winter house.

The archaeology team at Spoon Lake included project leader and principle investigator **Aron Crowell**; archaeologist **Mark Luttrell**; veteran volunteer **Tim Johnson**; and University of Alaska Anchorage (UAA) field school students **Hillary Hogue** (UAA), **Alexandra Painter** (Portland State University), **Pierce Bateman** (UAA), **Penelope Baggs** (University of Colorado Boulder), **Emalie Thern** (Beloit College), and **Kaitlyn McGlamery** (University of Denver). Videographer **Brandon McElroy** filmed the project for a feature

documentary now in production about the Yakutat community and the seal camps research program.

SEAL HUNTERS OF YAKUTAT: RESULTS OF "ARCTIC CRASHES" FIELDWORK IN SOUTHEAST ALASKA 2014

By: Aron L. Crowell

A brilliant mid-May sun illuminates sea, ice, sky, and towering coastal mountains at the head of Yakutat Bay in southeast Alaska. A 19-foot fiberglass skiff, motor idling and draped with white sheets for camouflage, pushes quietly through loosely packed ice floes near Sít' Tlein (Hubbard Glacier). Two Tlingit hunters – **Jeremiah James** and **Gary Johnson** – sit low inside the boat as they approach a silvery gray female seal and her pup, both resting on a small pan. The scene is Yakutat Bay's ice floe seal rookery, where over 2100 seals congregate each spring to feed, give birth to their young, and breed. The seals are safe on the floes from killer whales and sharks, but not from human hunters. James' .22 rifle shot is a lethal, low caliber whisper, barely audible in the murmur of slushing ice. Within minutes both seals are inside the boat, a harvest of meat and blubber that will be shared in the village, and of skins that James will transform into plush hats, vests, and bags.

Yakutat hunters take 250 or more seals per year and the community's 400 Native residents are the largest consumers of this resource in Alaska.

Modern hunting descends from ancient tradition. A Yakutat origin story recorded by linguist John Swanton in 1901 recalls how hunters of the Kwaashk'i Kwáan clan "all went in one canoe up to this glacier which was the seals' home." The history of sealing is recorded in indigenous place names that identify the locations of old



Running up Spoon River from base camp to the research site: Tim Johnson at the helm with students Alexandra Painter, Penelope Baggs, and Emalie Thern. Photo by Mark Luttrell.



Jeremiah James (in bow) and Gary Johnson (stern) with a harbor seal shot on an ice floe in Yakutat Bay, May 2014. Local Tlingit filmmaker Kai Monture manned a camera inside the boat to record the hunt. Photo: Aron Crowell.



Jeremiah James pulls a female harbor seal on board, filmed by Kai Monture. Photo: Aron Crowell.

villages and hunting camps built near the glacial front during the course of its 60 km retreat up the bay over the last nine hundred years. Archaeological remains uncovered at these ancestral sites include dwellings and middens filled with seal bones and artifacts. Earlier generations used dugout spruce canoes and took seals with bone-tipped harpoons, augmented with rifles starting in the late 19th century.

Born of this centuries-long reliance on harbor seals, Yakutat Tlingit knowledge of these animals and their changing habitat is profound. This understanding is systemic, encompassing the Yakutat fiord as a highly productive marine ecosystem, influenced by ocean currents, climate change, and glacial movements. It is historical, looking back at times of abundance such as the 1950s and 60s when the ice in Yakutat Bay and nearby Icy Bay was “black with seals” and Native hunters took thousands of animals each year for subsistence, state bounty payments, and commercial sale. It is spiritual, based on a belief in the essential personhood of both seals and of the glacier itself, which shelters the animals and provides them to the human community. Elders including **George Ramos Sr.** address *Sit’ Tlein* in Tlingit, giving respectful thanks for its bounty and sprinkling offerings of tobacco on the sea.

Through current collaborations between community researchers and scientists who are working with the Arctic Studies Center’s Yakutat Seal Camps Project and Arctic Crashes initiative indigenous historical and ecological knowledge is being applied to a perplexing problem – why have southern Alaskan harbor seal populations plunged precipitously in recent decades? This decline could be attributed to the “top-down” influence of excessive human hunting, the “bottom-up” influence of climate-driven marine ecosystem change, or some combination of factors. From the perspective of historical ecology – the guiding framework for Arctic Crashes research – the focus is on what can be learned by comparing contemporary human-seal-



Jeremiah James removes the skin from a harbor seal on the dock at Yakutat. James will use or give away every part of the animal including its meat, blubber, skin, and flippers (a delicacy prized by elders). Photo: Aron Crowell.

habitat interactions with those in earlier centuries when conditions were different.

The Yakutat research team represents a range of specialties – archaeology and anthropology (**Aron Crowell**, ASC Smithsonian), Yakutat oral tradition (**Elaine Abraham**, Alaska Native Science Commission, **George Ramos Sr.**, **Lena Farkas**, **Ted Valle**, and **Raymond Sensemeier**), indigenous knowledge and subsistence practices (**Judith Ramos**, University of



Filming the Yakutat seal hunt: Nicholas Bradford and Brandon McElroy setting up gyro-mounted video cameras on the ASC's chartered chase boat. Photo: Aron Crowell

Alaska Fairbanks), seal paleobiology and genetics (**Michael Etnier**, Portland State University), and glaciology (**Daniel Mann**, University of Alaska Fairbanks). Fieldwork funded by the National Science Foundation, the National Park Foundation, Sealaska Heritage Foundation, and the Smithsonian Consortium’s Arctic Crashes grant has taken place since 2011. The 2014 field season included an early May start to allow

filming and documentation of seal hunting at the glacier and interviews with hunters. Archaeological work at sealing sites was undertaken until August. In addition, museum collections, photographs, and archival records relating to Yakutat sealing have been consulted at the University of California Berkeley, the University of Pennsylvania, the National Archives, the University of Alaska Fairbanks, the National Museum of the American Indian, and the National Museum of Natural History (see article Alaina Harmon's article on NMNH faunal collections in this newsletter).

A preliminary historical synthesis can be sketched here, working back in time from the present. According to the National Marine Fisheries Service (NMFS) harbor seals (*Phoca vitulina*) are the most common marine mammals in coastal southern Alaska (including the Gulf of Alaska and Southeast Alaska regions), with a currently estimated population of over 150,000 animals. Yet this is just a remnant of the number found in these regions a few decades ago. Declines of 65-85% since the 1970s have been estimated for Kodiak Island, Prince William Sound, and Glacier Bay, and while no quantitative data are available for the Yakutat area local observers such as **Raymond Sensemeier** (Alaska Native Harbor Seal Commission) have noted a similar decline. Subsistence sealing is culturally and economically important across the entire region,

but NMFS concludes that Alaska Native hunting cannot be the cause of this dramatic "crash." Alaska Native subsistence harvests of about 1600 animals per year (around 1% of the regional seal population) are far too low to account for the dramatic post-1970s decline, leaving ecosystem change as the prime suspect (see discussion below).

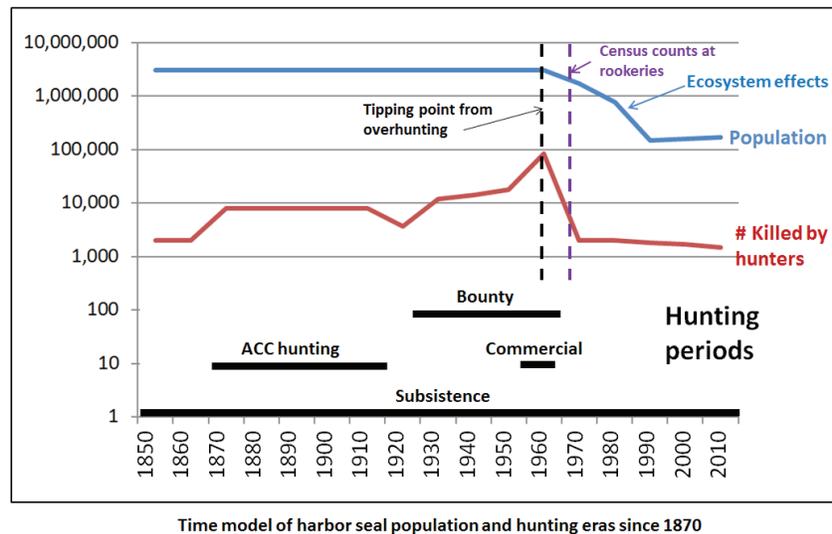
Historical harvest data support the existence of a very large pre-1970s seal population. During the bounty era - which extended from 1927 until the Marine Mammal Protection Act ended this practice in 1972 - game managers for the Territory (and later State) of Alaska viewed harbor seals as "pests" that harmed the salmon industry, and subsidized their mass killing by Alaska Native hunters. From 1927 to 1952 (years for which regional figures are available) an annual average of 8,125 bounty harbor seals was shot in

southern Alaska with little or no apparent year-to-year decline, suggesting that this level of loss was sustainable. Projecting from NMFS' biological model of the sustainable yield for harbor seals (about 3% per year) a stable take of this size this would have required a standing stock of at least 270,000 animals, and it could have been much larger. Noticeable decline of this population apparently did occur during the 1960s however, when intensive bounty hunting and a spike in commercial seal skin prices led to even higher annual kills (over 100,000 harbor and other hair seals statewide). George Ramos remembers that in one year during this decade he shot 600 seals at Icy Bay for their hides.

The late 19th century marked an earlier, critical transition point in the relationship between people and seals at Yakutat Bay. Around 1870, stimulated by the commercial outlet for seal skins and seal oil provided by the newly established Alaska Commercial Company, the people of Yakutat began moving each spring from their winter villages to large hunting camps near the glacier. Market-based seal hunting led to greatly increased annual harvests, aided by breech-loading rifles (widely available even though officially banned from Alaska Native trade). Women processed the catch on shore while men hunted among the floes, where the "crack of the Winchesters" could be continually

heard. The Yakutat population was joined by Tlingit and Tsimshian parties from as far away as British Columbia, emphasizing the extraordinary scale and attraction of the Yakutat hunting grounds. (See "At the Glacier's Edge: Images and Artifacts from an 1899 Tlingit Sealing Camp", ASC Newsletter 21:4-6, 2014).

Rich evidence of pre-contact seal hunting comes from the 16th- 18th century Tlákwaan (Old Town) site on Knight Island, where the late anthropologist **Frederica de Laguna** excavated in 1949-52 and where hundreds of well-preserved seal bones were recovered during Arctic Studies Center retesting in 2014. While archaeofaunal analysis by **Michael Etnier** is just beginning, it appears that many of the animals killed were pups, a pattern that signifies rookery hunting. At the time of Tlákwaan's occupation, Hubbard Glacier was at a mid-point in its retreat and hunting at the ice floe rookery could have



Source: Aron Crowell

been undertaken from the village without the need to establish up-bay hunting camps. Stable isotope analysis of the seal bones and other fauna from the site will provide information on marine productivity and water temperatures during the site's Little Ice Age occupation. DNA analysis will determine if the seals of several centuries ago were the ancestors of those that occupy the bay today, or alternatively that there has been population replacement.

This stepwise retrogression into the past suggests that past harbor seal populations in southern Alaska, although difficult to quantify, were formerly much larger than at present. It also indicates that human harvesting probably did not reach levels that significantly reduced seal stocks except during the 1960s when the annual take was at least 30 times higher than current subsistence hunting levels.

Turning to non-anthropogenic explanations for the population fluctuations of harbor seals and other sea mammals, it has been proposed that these correlate with climate-ecosystem cycles that occur on several temporal scales, including the 30 to 50 year warming and cooling intervals of the Pacific Decadal Oscillation (PDO) and multi-century trends such as the Medieval Warm Period (A.D. 900 – 1350) and Little Ice Age (A.D. 1350 – 1900). Changing water temperatures affect the whole food web, from microorganisms to top predators such as seals, sea lions, and whales. Generally speaking, forage species that are the most nutritious (oily and protein rich) for seals and other toothed sea mammals – including herring, capelin, and eulachon – increase during colder periods and decline in warmer. It follows that harbor seals may have reached a peak of abundance during the cold Little Ice Age phase, when Yakutat's Old Town site and 19th century sealing camps were used. Gradual population decline may have occurred over the 20th century as water temperatures followed a general warming trend. The sharp PDO-driven marine warming and ecosystem "regime shift" that took place in the North Pacific in the 1970s has been proposed as the proximate cause for the accelerated recent decline of harbor seals, sea lions, and sea otters. However, marine mammal biologist **Alan Springer** (University of Alaska Fairbanks) doubts this "nutritional stress" hypothesis in part because seals are generalist feeders that seem to readily adapt to diets of fish that prevail in warmer periods, including salmon.

At this stage the question of why harbor seal populations in the Gulf of Alaska and southeast Alaska have continued to decline in recent decades - rather than recovering from commercial overhunting in the 1960s – has not been resolved. Any future determination will almost certainly involve a complex interactive model in which human and natural factors combine. That model will be considerably enhanced if it incorporates historical ecological data (including archaeofaunal evidence) as well as the ecological knowledge and focused observations of indigenous residents.

ALL YOU NEED IS GUT

By: Aron L. Crowell

The Arctic Studies Center in Anchorage continued its highly popular Material Traditions series of Alaska Native arts events with Sewing Gut, a week-long public residency inspired by the age-old question – what do you do with a pile of fresh, slithery seal intestines? The answer, demonstrated by teaching artists **Mary Tunuchuk** (Yup'ik), **Elaine Kingeekuk** (St. Lawrence Island Yupik), and **Sonya Kelliher-Combs** (Iñupiaq-Athabascan), is to apply cultural knowledge and hands-on techniques to craft beautifully finished items such as rain parkas, doll clothing, decorated bags, dyed



Danielle Larsen starts the process of cleaning seal intestine. Photo by Wayde Carroll.

panels, and earrings in the form of tiny, beaded drums. They were joined during the week by **Alicia Figueroa**, **Danielle Larsen**, and **Eve Mendenhall**, undergraduate students in the Alaska Native Arts program at the University of Alaska Anchorage. To the unending fascination of museum visitors, staff, students (including a video conferenced Q?rius class in Washington DC), and Anchorage television crews, the artists cleaned and scraped the intestines to remove extra tissue, blew them up like party balloons, split them into strips, and sewed them together with embroidery thread, sinew, and grass.

The art is an ancient and practical one, used to create waterproof clothing for survival. **Mary Tunuchuk** said, "The snow is blowing. The seas are rough. If you have a rubber raincoat you're going to freeze to death. But if



Elaine Kingeekuk scrapes off the outer membrane on seal intestine. Photo by Wayde Carroll.

you have this one, this gut parka, you will last a little bit longer because it's going to keep you warm." During their residency the artists studied examples of seal and walrus intestine parkas, bags, and mittens displayed in the Smithsonian's *Living Our Cultures* exhibition gallery and selected from collections of the Anchorage Museum.

The opportunity for practicing artists to expand their repertoires by studying the design and construction of older museum pieces is a key feature of Arctic Studies Center artists' residencies, which have previously focused on snowshoes, bentwood hats, fish skin clothing, and porcupine quill embroidery. Another objective of the events is for artists to share their knowledge of materials and processes with ethnographic conservators, who can apply what they learn to improving the care of museum objects. **Monica Shah** (Anchorage Museum), **Sarah Owens** (Anchorage



Mary Tunuchuk twists multi-strand embroidery thread – a sinew alternative – for sewing seal intestine. Photo by Wayde Carroll.

Museum), **Michele Austin-Dennehy** (National Museum of Natural History) and **Kelly McHugh** (National Museum of the American Indian) attended Sewing Gut, joined via videoconference by faculty and students from the Winterthur Museum and the UCLA/Getty conservation program. Conservators learned that gut items, which often become dry and fragile in storage, can be safely restored to their natural strength and

flexibility by wetting them, just as kayak hunters did before donning their seal intestine parkas.

The Gut residency in Anchorage (held December 1-5, 2014) was followed by a two-day community workshop in Bethel (January 24-25, 2015) taught by **Mary Tunuchuk** with help from **Sarah Owens**. The Yupiit Piciryarait Cultural Center (**Eva Malvich**, Director) hosted the event. In Bethel a dozen adult students set to work under Tunuchuk's direction to make seal intestine egalret – Yup'ik for windows. These translucent panes were traditionally used as skylights in Yup'ik houses. Non-Native students in both Anchorage and Bethel used hog gut rather than seal intestines for their projects in order to abide by provisions of the Marine Mammal



Eve Mendenhall splits grass for sewing into the seam. Photo by Wayde Carroll.

Protection Act. Participants in the Bethel class were enthusiastic about the chance to learn and help restore a once-thriving Yup'ik art. They also were taught about its

spiritual dimensions by Tunuchuk, who told them, "Elders used to say that the seal represents everything that we are, that humans are" (quoted in the Alaska Dispatch News).

The Arctic Studies Center was proud to host the three distinguished lead artists, who have quite diverse backgrounds. **Elaine Kingeekuk** grew up in the village of Savoonga on St. Lawrence Island. The tradition of skin sewing was passed down to her by her mother.



Eve Mendenhall shows her finished seam. Photo by Wayde Carroll.

She says of her work "I love to sew and it runs in the family. It holds a special meaning to me because it has cultural history behind it." Her materials include polar bear skin, seal gut, and seal skin. Her dolls and clothing, including ornamented ceremonial seal intestine parkas,



Mary Tunuchuk twists multi-strand sinew for sewing seal intestine. Photo by Wayde Carroll.

are in many collections including the Museum of the North at the University of Alaska Fairbanks. Elaine is a fluent speaker of the St. Lawrence Island Yupik language.

Mary Tunuchuk was born in a sod house on Nelson Island, in the now-abandoned village of Qungurmiut. When she was a child, her family moved to Chefnak, where she raised her family and currently resides and lives an active subsistence

lifestyle. Mary is a retired kindergarten teacher and has co-authored children's books in Yup'ik, which she speaks fluently. Mary learned how to sew gut parkas from her mother and other women and made one last winter for her grandson who, along with his father and brother, still wears them when they go out seal hunting. Very few hunters today have access to such expertly-designed, traditional outerwear.

Sonya Kelliher-Combs, who grew up in Nome, produces mixed media painting and sculptures that chronicle the ongoing struggle for self-definition and identity in the Alaskan context. Skin is often her metaphor for the individual's relation to society, and sea mammal membrane sheets, panels, and three-dimensional forms are a signature element of her work. Her B.F.A. is from the University of Alaska Fairbanks; her M.F.A. is from Arizona State University; and she is a recipient of the Eiteljorg Fellowship for Native American Fine Art. Sonya plans to bring traditional processing and sewing techniques learned from the other two artists into her future fine arts work.



Sonya Kelliher-Combs begins sewing together strips of dried seal intestine. Photo by Wayde Carroll.

The Material Traditions series is made possible by the Surdna Foundation, The CIRI Foundation, First National Bank Alaska, the Alaska State Council on the Arts, the Smithsonian Council for Arctic Studies and the Anchorage Museum. Upcoming events include the

Ivory (walrus ivory carving) residency during March 30 – April 3 2015 and the Cedar (Northwest Coast wood carving) residency during October 5 – 9 2015. **Dawn Biddison**, Assistant Curator at the Arctic Studies Center in Anchorage, is the manager and co-organizer of the events with **Aron Crowell**.

Web links to extensive media coverage of the Gut residency and workshop include <http://kyuk.org/bethel-residents-learn-to-sew-guts/#more-34131> (in English and Yup'ik), <http://www.adn.com/article/20150125/art-seal-gut-bethel-workshop-teaches-tradition>, <http://www.alaskapublic.org/2014/12/03/traditional-gut-sewing-at-the-anchorage-museum/> and <http://www.ktva.com/alaska-native-artists-show-off-gut-sewing-skills-for-students-924>.

Alaska Native artist and videographer **Anna Hoover** filmed the Anchorage and Bethel events, from which online videos will be edited by Dawn Biddison.

“LISTEN AND LEARN” ALASKA NATIVE LANGUAGE PUBLICATIONS (INUPIAQ AND ST. LAWRENCE ISLAND YUPIK)

By: Aron L. Crowell and Dawn Biddison

*Aa sakmaani Sivuqami qiighqami
tazimkaghaaneng atuqayuuguut yuput.
Aghulakayuget atuqayuget atuusikayuget
Ayuumighhaaneng unguvastaat taana atug.*

Our men have drummed and sung on St. Lawrence Island since long ago. They dance, sing, and compose songs and have since long ago, keeping drumming alive.

(Merlin Koonooka at the St. Lawrence Island language seminar in Anchorage, 2012)

LISTEN & LEARN

Inupiaq Language and Culture Video Lessons



Cover of Listen & Learn: Inupiaq Language and Culture Video Lessons

Aspiring learners of St. Lawrence Island Yupik can now watch a 7-minute DVD video about drums and drumming narrated by expert speakers of the language, then use a text-based lesson to study verb bases and nouns such as **aghula-** (to dance), **atugh-** (to sing), and **atuun** (song). Forms of these words are embedded in the quote above, from the video. You

can try it yourself at http://www.mnh.si.edu/arctic/html/recovering-voices-alaska/RVAlaska_Yupik.html.

This lesson (Saguvak/Drum) is one of 18 contained in the Listen and Learn series, produced and published by Arctic Studies Center in Alaska. The two video-based language learning curricula – one in Iñupiaq and the other in St. Lawrence Island Yupik – were created through Bering Strait region indigenous partnerships and funded by the National Park Service's Shared Beringian Heritage Program. The printed and downloadable books contain teachers' guides, student lessons, and DVDs featuring learning sessions with fluent elders. The DVD lessons focus on museum objects and their cultural meanings, with pre- and post-viewing student activities to reinforce vocabulary and syntax.

The project took four years, starting with the award of the National Park Service grant in 2010. Stages of the project included language seminars held at ASC-Alaska in 2011 and 2012 (see "Iñupiaq Language and Culture Seminar" ASC Newsletter 2011:7-8 and "St. Lawrence Island Yupik language Workshop" ASC Newsletter 2012:6); translations and transcriptions by **Edna Aghaek MacLean**, **Bernadette Alvanna-Stimpfle** (Kawerak, Inc.), **Lorena Kapniaq Williams** (Aqqualuk Trust), and **Christopher Koonooka** (Bering Strait School District); video writing by **Aron Crowell** and **Dawn Biddison**; video-editing by **Zachary Lassiter**, **Brandon McElroy**, and **Sarah Betcher**; curriculum writing by **Lauren Shutt**, Title VII Indian Education Specialist at the Anchorage School District; bilingual text editing by **Dawn Biddison** assisted by the translators and by **Lawrence Kaplan** (Alaska Native Language Center); and final production and printing by the Government Printing Office (GPO). The GPO printed and distributed 600 copies of both books, each with back-pockets

LISTEN & LEARN

St. Lawrence Island Yupik Language and Culture Video Lessons



Cover of Listen & Learn: St. Lawrence Island Yupik Language and Culture Video Lessons



Participants in the Iñupiaq seminar: Jana Harcharek, Herbert Foster Sr., Willie Goodwin Jr., Sylvester Ayek, Bernadette Alvanna-Stimpfle, Rachel Riley, Faye Ongtawasruk and Alvira Downey.



Participants in the Yupik seminar: Christopher Koonooka, Ralph Apatiki, Sr., Merlin Koonooka, John Apassingok, Jonella Larson White, Lydia Apatiki, Angela Larson and Elaine Kingeekuk.

containing the DVD and a CD with teachers guide and lesson plans in PDF format. The books are available from the Arctic Studies Center and the complete materials are posted on the Arctic Studies Center web site (see link above) and the Alaska Native Knowledge Network (<http://ankn.uaf.edu/ArcticStudies/>). The lessons are intended for use in Alaskan bilingual education classes and by independent learners who are looking to enrich their basic studies. The Arctic Studies Center plans on extending this successful pilot program to other Alaska Native languages, and will apply for a Documenting Endangered Languages grant from the National Science Foundation.

NEVER ALONE – A BREAK-THROUGH IÑUPIAQ VIDEO GAME

By: Aron L. Crowell

The newly released video game *Never Alone (Kisima Ingitchuna)* invites players into a world of Arctic ice and traditional Iñupiaq culture as they guide young Nuna and her pet fox on a quest to stop an endless blizzard. Produced by E-Line Media, Upper One Games, and Cook Inlet Tribal Council in collaboration with community advisers, educators, and youth in Barrow, the game plays out a story from oral tradition that may have been inspired by the *Year Without Summer* (A.D. 1783). *Never Alone* has generated excitement in Alaska, captured national media attention, and won numerous industry awards

(<http://neveralonegame.com>). At an early stage of the project E-Line's Creative Director **Sean Vesce** and Art Director **Dima Veryovka** visited the Arctic Studies Center in Anchorage to study historic Iñupiaq skin clothing, tools, and hunting weapons that characters wear and use in the game. Veryovka was particularly inspired by an NMAI bola with seal-shaped weights, a traditional duck hunting weapon that Nuna uses in her adventures to magically overcome adversaries. In a January presentation in Washington for the Smithsonian's Intangible Cultural Heritage program, Cook Inlet Tribal Council CEO **Gloria O'Neill** highlighted *Never Alone* as an exciting new medium for bringing



the beauty and values of an Alaska Native culture to worldwide audiences. The Arctic Studies Center and Smithsonian Enterprises are continuing to work with the game's creators as they envision new projects based on community knowledge, indigenous heritage, and museum resources.

For more information on how Native artifacts from the Smithsonian collections were studied for use in the video game, please visit Smithsonian Magazine's story on the collaboration: <http://www.smithsonianmag.com/smithsonian-institution/how-smithsonian-artifact-ended-video-game-never-alone-180954500/>

LOCAL INSPIRATION: ALASKA NATIVE ARTISTS STUDY THE COLLECTIONS

By: Dawn Biddison

Local Inspiration is a new program developed and managed by **Dawn Biddison** in partnership with **Monica Shah**, Director of Collections at the Anchorage Museum. The objectives of the program are to connect emerging Alaska Native artists to collections on display at the Living Our Cultures exhibit and in the Anchorage Museum collections as a resource for research and study to advance their development as an artist, and to strengthen the relationship between Alaska Native artists and the museums, increasing accessibility to museum staff and collections.

With funding from the Anchorage Museum's Polar Lab initiative, a pilot program was held in the summer and fall of 2014 with two Anchorage-based Alaska Native artists, **Allison Warden** and **Brian Walker II**. Allison is an Inupiaq inter-disciplinary artist whose work you can learn about at

Artist Allison Warden with Inupiaq snow goggles from the NMNH collection (E044256).

matu.com. Brian is Deg Hit'an Athabascan and King Island Inupiaq. His focus as an artist is on carving and specifically Athabascan masks. The artists met with Dawn and Monica to discuss their interests and to select objects for study. Over two days, they studied pieces taken off exhibit and from collections and also



Artist Brian Walker with masks from the NMNH and NMAI collections.

viewed in pieces in the AM collections storage. Dawn provided them with a resources notebook containing object photos and documentation and also information about artist opportunities at the National Museum of the American Indian, the Burke Museum, and the Institute of American Indian Arts. She also reviewed online resources for Alaska Native collections and archival photographs, and introduced them to the staff and resources at the Anchorage Museum archives. Intern **Chelsea Quinlan** filmed and edited a short video about Allison's participation, which can be viewed on the ASC Anchorage NMNH YouTube page Living Our Cultures at <https://www.youtube.com/playlist?list=PL33278BF298794573>.

In the spring of 2015, the Local Inspiration will be in full swing with a call for four Alaska Native artists to apply for the program. Through additional Polar Lab funding for travel costs, outreach will expand to rural communities. Updates on the program will be posted on the ASC blog *Magnetic North*.

ALASKA NATIVE FILM PREMIERE

By: Dawn Biddison

In October, **Dawn Biddison** hosted the Anchorage

premiere of *Tracing Roots*, a new documentary by filmmaker **Ellen Frankenstein**.

According to Frankenstein, *Tracing Roots* is "a heartfelt glimpse into the world of Haida elder and master weaver **Delores Churchill**.

The documentary follows Delores on her journey to uncover the mystery of a spruce root hat found with Kwáday Dän Ts'ínchi, also known as the Long Ago Person Found, in a retreating glacier in the Yukon. It is a story of learning, teaching and linking the past to the present." The screening was attended by the Ellen and by Delores, and both participated in an audience Q&A that followed. To learn more about the film and see clips, please visit <https://artchangeinc.squarespace.com/tracing-roots-cover>.



Delores Churchill and Ellen Frankenstein. Photo by Hal Anderson.

NEW MICROSITE: SHARING KNOWLEDGE ALASKA

By: Dawn Biddison



Sharing Knowledge Alaska

Banner image for new microsite.

With work beginning in November, **Dawn Biddison** and **Laura Sharp** completed a new ASC microsite *Sharing Knowledge Alaska*, with assistance from NMNH website administrator **James Kochert**. The microsite presents video documentation for some of the *Living Our Cultures* exhibition programs, offering teachers, students, parents and lifelong learners access to Alaska Native languages and lifeways. The current postings are: *Listen & Learn: Iñupiaq Language and Culture Video Lessons* (six videos with a teacher's guide and lessons), *Listen & Learn: St. Lawrence Island Yupik Language and Culture Video Lessons* (twelve videos with a teacher's guide and lessons), *The Art of Aleutian Islands Bentwood Hats* (eighteen videos), *Material Traditions: Sewing Salmon* (nine videos) and *Material Traditions: Dene Quill Art* (eight videos). New sets of videos will be added to the site as

more programs are held. And as opportunity allows, more educational materials for the videos will be written and posted.

SMITHSONIAN SPOTLIGHT

By: Dawn Biddison

Since August of 2010, ASC Anchorage has hosted a monthly series of public presentations called the Smithsonian Spotlight in connection with its exhibition *Living Our Cultures, Sharing Our Heritage: The First Peoples of Alaska*. The presentations, held the first Thursday of every month, are given by Alaska Native artists and scholars and organized by **Dawn Biddison**. In 2014, the Spotlight was sponsored by the Recovering Voices Program, an initiative led by the Smithsonian's National Museum of Natural History.

In February, Iñupiaq photographer **Brian Adams** discussed *I am Alaskan*, his new book of photography that "entices us to reconsider our ideas of this unique and compelling land and its equally individual residents." He challenges the notion that there is a typical Alaskan through portrait subjects ranging from Alaska Native villagers and everyday people in cities to well-known personalities such as Sarah Palin and Lance Mackey. A book signing followed his talk. Yup'ik/Iñupiaq artist **Drew Michael** spoke in March about his work and upcoming projects, which blur the lines between traditional and contemporary art. He blends Alaska Native traditions and modern design in his provocative masks and carvings, incorporating everything from wood and baleen to candlewax and



Drew Michael. Photo by Loren Holmes.

Barbie dolls. The documentary film *Chenega is Gone* – a 1964 documentary film about the earthquake and tsunami that hit Alaska in April of that year – was screened in April, presented by **Karen Rogina**, Director of Corporate Communications at the Chenega Corporation. This presentation was held in conjunction with the Anchorage Museum exhibition Riskland:

Remembering the 1964 Earthquake. The screening was followed by a discussion with Chenega Corporation President/CEO **Charles Totemoff** and Chenega elder **Nick Kompkoff**, who survived the destruction of his village.

In May, **Andria Agli** (Bristol Bay Native Corporation) and **Sonya Senkowsky** (formerly with Bristol Bay Resource Solutions) screened of Day in Our Bay, a 15-minute video created by Bristol Bay residents to document the joys and hardships of life in Bristol Bay. In the presentation that followed, they discussed how this digital storytelling project became a community-based forum for sharing Alaska Native values and culture. Tlingit artist **Tommy Joseph** gave a talk in June on Tlingit battle dress and his study of anthropological collections at national and international museums. His work combines traditional and contemporary elements in artwork that includes totem poles, house posts, armor and masks. In August,



Tommy Joseph. Photo by Kristina Cranston.

scholar and author **Roy Agloinga** discussed the new dictionary of Qawairaq Igaluik Inupiaq, the endangered language of his home village of White Mountain. Roy hopes the dictionary, a project he spent many years working on, will be "a resource to reawaken my people through traditional knowledge and Inupiat definitions of place and relationships." You can see a short video Voices of Our Ancestors from his presentation on the ASC Anchorage NMNH YouTube page Living Our Cultures at <https://www.youtube.com/playlist?list=PL33278BF298794573>.

In September, Iñupiaq artist **Holly Mititqu Nordlum** discussed melding traditional imagery and contemporary design in her work, which includes graphic design, illustrations and print making. Holly also spoke about her participation in the National Museum of the American Indian Artist Leadership Program and screened a short film she produced about the resulting project, which included work with at-risk Alaska Native boys in Anchorage. You can

watch this film online at <http://vimeo.com/104909937>. The presentation in October was on the oral history and archaeology project Yakutat Seal Camps, a multidisciplinary study of 900 years of interaction between people, seals and glaciers at Yakutat Bay, Alaska. The presenters were Tlingit elder **Elaine Abraham** (Alaska Native Science Commission), **Aron Crowell** (ASC Anchorage) and Tlingit scholar **Judy Ramos** (University of Alaska Fairbanks). Intern **Natalie Martinez** filmed and edited the entire event, which can be viewed on the ASC microsite Yakutat Seal Camps at <http://www.mnh.si.edu/arctic/html/Yakutat-seal-camps/YSCvideos.html>.

In November, Tlingit artist **Teri Rofkar** and Anchorage Museum Conservator **Sarah Owens** gave a talk about collaborative projects on spruce root basketry where they investigated and reverse-engineered the use of this locally-harvested, raw material. Teri is a master weaver and has researched Tlingit basketry in museums around the world. This event was held in conjunction with the Anchorage Museum exhibition It's All Material.



Sonya Kelliher-Combs. Photo by Chris Arend.

During the December Material Traditions: Sewing Gut artists' residency, participating artist **Sonya Kelliher-Combs** (Iñupiaq/Athabaskan) gave a presentation on her recent artwork and how material, synthetic skin and marine mammal membrane inform her pieces. Sonya is a contemporary artist who works in mixed media painting and sculpture. According to the artist, her work "offers a chronicle of the ongoing struggle for self-definition and identity in context of Alaska," and her "use of synthetic, organic, traditional and modern materials moves beyond oppositions between Western/ Native culture, self/other and man/nature to examine their relationships while also questioning accepted notions of beauty."

ASC ANCHORAGE INTERNS

By: Dawn Biddison

Stefano Raspa began a documentary film internship

in April as part of his studies for a postgraduate degree in Cultural Anthropology and Ethnology at the University of Bologna, Italy, where he earned a B.A. in Anthropological Sciences. After studying materials on Athabaskan cultures and prior ASC videos, Stefano worked closely with **Dawn Biddison** to edit a series of short educational videos for a chaptered DVD documenting the week-long artists' residency Material Traditions: Dene Quill Art held in November of 2013. The videos include: Introduction, Materials & Preparation, Dying Quills, Quillwork Techniques (3 parts), Meet the Artists and Meet the Conservators. His complete work can be seen on the new ASC Anchorage microsite noted above and the Introduction video on the ASC Anchorage NMNH YouTube page Living Our Cultures at <https://www.youtube.com/playlist?list=PL33278BF298794573>.



Stefano Raspa

Also in the spring, **Molly Johansson** volunteered again as a public programs intern during a break from her M.A. program in Culture, Materials and Design at University College London. She completed new content for the *Sharing Knowledge* website, including new text and photos for object entries from ASC Anchorage public programs with Alaska Native culture bearers. She also updated and added new biographies for project contributors.



Molly Johansson

Chelsea Quinlan completed her documentary film internship in the summer, using the position to expand her filmmaking experience as a stop-motion animation student at the School of Visual Arts in New York. Chelsea filmed and edited a short video Alaska Native Artists in the Collection for the Local Inspiration project, described above with a link to view the video. She also filmed and edited ten interviews with Alaska Native artists, a collaboration with local Yup'ik/Iñupiaq artist **Drew Michael** for a 2015 exhibition he will curate for the Anchorage Museum. Chelsea also conducted independent field research for her thesis project.

Hillary Presecan began her public programs internship in June, as an independent study for university



Hillary Presecan

credit. Her internship was sponsored by the University of Alaska Foundation, with support from the First National Bank Alaska. During her internship, she worked closely with Dawn Biddison on making archival format copies and records of audio files, video files and transcripts of the Alaska Collections Project documentation comprised of research with Alaska Native elders and tribal representatives at the National Museum of Natural History and the National Museum of the American Indian, which was the basis for the *Sharing Knowledge* website and *Living Our Cultures* exhibition. Upon completion, these materials will be held at the National Anthropological Archives. She also filmed and edited a short video of the August Smithsonian Spotlight short with **Roy Agloinga**, *Voices of Our Ancestors*, which can be viewed on the ASC Anchorage NMNH YouTube page noted above. Hillary accepted a joint position as an Administrative Assistant at the Crazy Horse Memorial and Museum Technician Assistant at the Indian Museum of North America and Native American Educational and Cultural Center, moving to South Dakota after her internship.

In the fall, **Natalie Martinez** completed a documentary film internship, part of an independent study for university credit towards her B.A. in Film & Media Studies at Washington University in St. Louis. Natalie filmed and edited a short video *The Yakutat Seal Camps Project 2014*, which can be viewed on the ASC microsite Yakutat Seal Camps at <http://www.mnh.si.edu/arctic/html/Yakutat-seal-camps/YSCvideos.html> and on the ASC Anchorage NMNH YouTube page noted above. Natalie also filmed and edited the entire October Smithsonian Spotlight presentation on the project, also available for viewing on the microsite, which features Tlingit elder **Elaine Abraham** (Alaska Native Science Commission), **Aron Crowell** (ASC Anchorage) and Tlingit scholar **Judy Ramos** (University of Alaska Fairbanks). In addition, she filmed and edited six short videos for the Anchorage Museum exhibition *It's All Material*, featuring interviews with Alaska artist and visits to their studios.



Natalie Martinez

Pierce Bateman began a archaeology internship in the



Pierce Bateman

fall that extended into the winter, continuing work from his participation in the Yakutat Seal Camps Project in the summer. Pierce catalogs and cleans artifacts and faunal remains he helped to excavate. In addition, he leads small tours of the archaeology lab, informing museum visitors about ongoing archaeological work at ASC Anchorage. When not in the lab, Pierce is working to complete his B.A. in anthropology and history at the University of Alaska Anchorage.

NEWS

ARCTIC SPRING FESTIVAL AT THE NATIONAL MUSEUM OF NATURAL HISTORY, MAY 8-10TH, 2015



West Greenland Village. Photo Credit: Wilfred Richard.

The Smithsonian Institution's National Museum of Natural History hosted an educational weekend event celebrating Arctic peoples, cultures, and science: **Arctic Spring—Arctic Matters: A Smithsonian Festival of the North, May 8-10, 2015**. The event coincides with the launch of the United States' 2015-2017 chairmanship of the Arctic Council, the international governmental body coordinating Arctic policy. When the US last chaired the Arctic Council (1998-2000), the Arctic was considered to be at the edge of the world's concerns. Now it is front and center in terms of environmental change and geopolitical importance.

Arctic Spring featured educational programs including a symposium, science displays and interactives, family events, artifacts and art, cultural and musical performances, and films. Activities took place throughout the museum over a three-day period. Museum scientists, cultural experts, Arctic residents, government agencies, artists and photographers presented research findings

and engaged visitors in exploring what is known and still needs to be known about the Arctic, its lands, ocean, animals, cultures, and peoples.

For more information about the Arctic Spring Festival, visit our website: <http://www.mnh.si.edu/arctic/arctic-springfestival/>

IARPC ARCTIC COMMUNITIES COLLABORATION TEAM REPORT 2014

By: Bill Fitzhugh

Every five years the U.S. Interagency Arctic Research Policy Committee (IARPC) prepares and publishes a 5-year Arctic Research plan that lays out a strategy for research goals for government agencies involved in work in the U.S. Arctic. In the past these IARPC plans had little more reality than 'day-dreams,' but in the Obama regime, IARPC coordination shifted from NSF to the Office of Science and Technology Policy (OSTP) in the White House and the work of the committee took on a new level of organization—and scrutiny—which is all for the good in this era of Arctic change. A second axis of Arctic policy planning, that talking place at the international level, is conducted under the auspices of the State Department by the Arctic Policy Group (APG). The Smithsonian ASC is involved in both groups, and **W. Fitzhugh** chairs the IARPC's Arctic Communities Coordination Team (ACCT) with assistance from IARPC Executive Secretary **Sara Bowden, Amy Holman, Igor Krupnik, Roberto Delgado, and Anna Kerttula de Echave**.

This year the ACCT promoted the goals of the U.S. Arctic Plan by holding open conference call meetings of government officials, Alaska Native participants, and University-based scholars at intervals of 4-6 weeks. During the past year (2014), with participation ranging from 15 to 25 individuals, the ACCT focused its activities on (1) the area of communications, information sharing, outreach, and coordination rather than initiating or coordinating research projects or programs, and (2)



Photo by: Christina Solia (POLARTrek 2012), courtesy of ARCUS.

encouraged international as well as US- and Alaska-based participation. In addition to bi-monthly meetings we found webinars a useful tool for outreach and communication beyond the regular teleconferences.

The general task of the ACCT is to assess strengths and vulnerabilities of Arctic communities facing the impacts of climate change

and to assist in identifying adaptation strategies and tools to maximize sustainability, well-being, and cultural and linguistic heritage. Our goal of facilitating socio-economic research to understand the impact on ecosystem services of a warming climate (Plan element 3.2.5) was met by the publication of a major report by the Arctic Social Indicators Project that contains recommendations on ways to adapt and minimize impacts. Progress was also made on several milestones for 3.4.2a, determining local resident priorities for addressing change, by studies funded by the NSF. Several agencies (DOI, EPA, SI, NSF) made progress engaging indigenous observers in the study of change (3.4.9). Community collaboration in assessing sustainability, resilience, and adaptation (3.6.1) saw progress with studies of past and current adaptation strategies by DOI, DOE, DOS, and SI. The identification of community vulnerabilities (3.6.2) was the subject of studies and reports by BOEM, EPA, NSF, USFWS, and USGS, and by a forthcoming Arctic Social Indicators II project. One of our ACCT webinars addressed food security issues featured in 3.6.3: developing projections of future climate impact scenarios and demographic conditions to forecast potential strengths and weaknesses of human and ecological systems in the Arctic. However, it was apparent that complications inherent in mounting such a large-scale international enterprise made this target largely unattainable with current resources. 3.6.3.c is being addressed by a Smithsonian study of past human and animal population changes (“crashes”) when facing climate and environmental change. Support for indigenous languages and cultural heritage (3.6.4) was facilitated by the passage of a State native language bill and by education programs conducted by the SI, NPS, NSF and other agencies; many new publications appeared in this area. However, the bulk of this work is being carried out by or in collaboration with Native organizations, universities, NGOs and others.

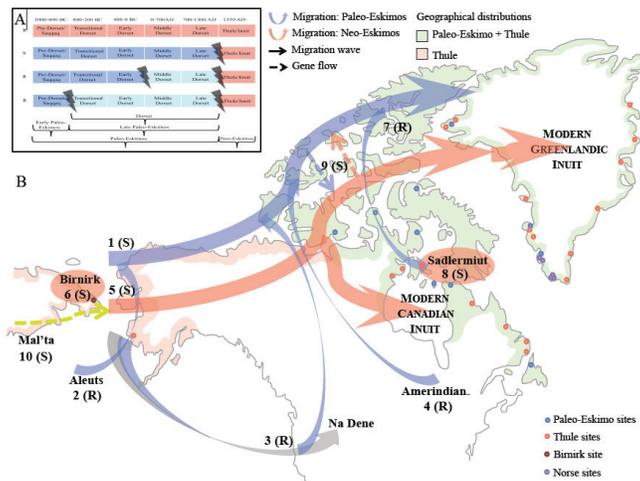
Plans for future activities include webinars on language preservation and cultural heritage; reports from agency studies now underway; and new research on social indicators. The ACCT expects its work will expand and receive more attention during the forthcoming US Arctic Council Chair era (2015-2017). As part of the educational activities planned for the AC Chair transfer from Canada to the U.S.A. the Smithsonian hosted an “Arctic Spring” festival at the National Museum of Natural History in early May, 2015. The program included a panel

discussion, performances, arctic-themed games, research presentations, and a film festival.

We wish to express our deep gratitude to all those who participated in ACCT meetings and/or tuned in to our webinars.

TOP 10 SCIENCE DISCOVERIES OF THE YEAR AT THE SMITHSONIAN: THE GENETIC PREHISTORY OF THE NEW WORLD ARCTIC

By: Meghan Mulkerin, excerpted from NMNH Annual Science Report.



“The Genetic Prehistory of the New World Arctic” Raghavan et al., *Science* 29 August 2014; Vol. 345 no. 6200 DOI: 10.1126/science.1255832

The National Museum of Natural History’s Annual Science Report (2014) recognized **William Fitzhugh** and colleagues for one of the Top 10 science discoveries this year at the museum, for their contribution to the New World Arctic genetic study in *Science*, “The Genetic Prehistory of the New World Arctic.” Since the 1960s, archaeologists have debated the origin of ancient arctic peoples and their migration paths to North America. To better understand how the first arctic cultures travelled and interacted with one another, an international team of scientists led by **Eske Willerslev** and **Manassa Raghavan** analysed 169 samples of ancient bone, hair and teeth from Arctic archaeological sites ranging from Siberia to Greenland. The results, published in the August 29 issue of *Science*, are a stunning achievement of new DNA technology that reveals a new, separate migration of Siberian peoples into the Americas about 6,000 years ago. This research was featured in more than 180 placements in prominent national and international media outlets, including The New York Times, The Washington Post, Toronto Star, National Geographic, Fox News, Yahoo! News and NBC News.

2014 SMITHSONIAN EDUCATION ACHIEVEMENT AWARD

Aron L. Crowell was honored to receive the 2014 Smithsonian Education Achievement Award for outstanding performance in creating collaborative education programs that reach diverse audiences in Alaska. These include the *Living Our Cultures, Sharing Our Heritage* exhibition in Anchorage and public programs fostering Alaska Native arts, languages, and knowledge. Secretary **G. Wayne Clough**, in company with **Claudine K. Brown** (Assistant Secretary for Education and



Aron Crowell receives the 2014 Smithsonian Education Achievement Award from Secretary Wayne Clough and Claudine K. Brown.

Access), **Stephanie L. Norby** (Director, Smithsonian Center for learning and Digital Access), and **William Fitzhugh** (Director, Arctic Studies Center) presented the award at a June 3 ceremony in the Castle Commons. An accompanying cash prize of \$5000 will be used to help fund the Arctic Studies Center's Material Traditions artist residency series. The annual Education and Education Innovation awards are endowed by the Smithsonian Women's Committee.

Crowell praised **Dawn Biddison** for her many contributions in support of the Arctic Studies Center's Alaska programs.

IGOR KRUPNIK RECEIVES IASSA LIFETIME AWARD (MAY 2014)

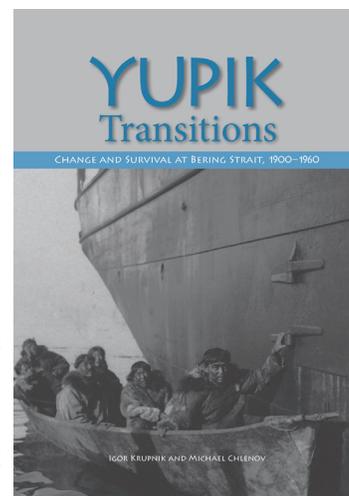
On May 25, 2014, **Igor Krupnik** was awarded an 'Honorary Lifetime Membership' by the International Arctic Social Sciences Association (IASSA) at its 8th Congress in Prince George, British Columbia. The award was given in "recognition of his sustained and significant contribution to Arctic Social Sciences." Igor was one of the founding members of IASSA in 1990 and he served three times on its governing Board, in 1990-1995 and, again, in 2004-2008. Two other 2014 IASSA awardees included Prof. **Julie Cruickshank** (University of British Columbia, Emeritus) and Prof. **Oran Young** (University of California Santa Barbara, Emeritus). IASSA's 8th International Congress, May 22-26, 2014 was the largest Association's gathering ever, with over 550 participants from 30 nations.

IGOR KRUPNIK'S NEW YUPIK BOOK RECEIVED HONORARY MENTION FROM THE MILLS PRIZE COMMITTEE

In August 2014, **Igor Krupnik's** new book co-authored with Russian anthropologist, **Michael Chlenov**, *Yupik Transitions: Change and Survival at Bering Strait, 1900-1960* (University of Alaska Press, 2013) received an 'honorary mention' from the Polar Libraries Colloquy, under its biannual William Mills Prize for the non-fiction Polar books. In the award press release, the William Mills Prize Committee called the book "[...] a compelling portrait of the struggle of the Yupik people of Siberia to maintain their culture and identity in the face of actions taken by Russian and Soviet authorities

especially during the Cold War."

The Polar Libraries Colloquy, formerly the Northern Libraries Colloquy, was founded in 1971 as an international forum through which librarians and others concerned with the collection, preservation, and dissemination of polar information promote initiatives leading to improved collections and services. The William Mills Prize for Non-Fiction Polar Books was established in memory of **William Mills**, who was a core member of the Colloquy, a consummate polar librarian as well as author.



Yupik Transitions: Change and Survival at Bering Strait, 1900-1960.

The biannual book prize, first announced in 2006, honors the best Arctic or Antarctic nonfiction books published throughout the world. In the past years it was awarded to several seminal polar publications, such as the 3-volume Encyclopedia of the Arctic (**Mark Nuttall**, ed., 2005) in 2006, Encyclopedia of the Antarctic (in 2 volumes, **Beau Riffenburgh**, ed., 2007) in 2008, Furs and Frontiers in the Far North (by **John R. Bockstoe**, 2009) in 2010. In 2008, **Ann Fienup-Riordan's** exhibit catalog, *Yuungnaqpiallerput / The Way We Genuinely Live: Masterworks of Yup'ik Science and Survival* (2008) received Mills Prize Honorary Mention (same as Krupnik and Chlenov's book). The 2014 Mills Prize award was the first given to a publication that documented indigenous people's knowledge of the polar regions, *The Meaning of Ice: People and Sea Ice in Three Arctic Communities* (**Shari Fox Gearheard, Lene Kielsen Holm, Henry Huntington, Joe Leavitt, Andrew Mahoney, Margaret Opie, Toku Oshima and Joelle Sanguya**, eds. Hanover, NH: International Polar Institute Press, 2013).

RAMAH CHERT QUARRIES: A NEW CANADIAN NATIONAL HISTORIC SITE

By: Stephen Loring

In January 2015, Canadian Minister of the Environment, **Leona Aglukkaq**, acting upon a recommendation of the Historic Sites and Monuments Board of Canada, designated the Ramah Chert quarries at Ramah Bay, Labrador, as a National Historic Site of Canada. The recognition is long overdue. It is hard to imagine an archaeology of Labrador and adjacent Nunavik, and even of Eastern North America, without considering the significance of Ramah Bay.

For at least 7000 years, and quite possibly more, the stone quarried from Ramah Bay was fashioned into

tools and weapons and during several periods was transported as far away as New England, Maryland, and the Great Lakes. The exceptional physical qualities and the exquisite beauty of the translucent Ramah chert has entranced and fascinated northern hunters and archaeologists alike. Smithsonian researchers have played a prominent role in unraveling the mystery and mystique of this legendary material.



Human/bear figurine, Middle Dorset ca. 300-600 C.E., Koliktalik site, Nain, Labrador; Ramah chert 3.8 cm. The Rooms, St. John's Newfoundland.

In 1976 a Smithsonian field party that included **Michael Gramly** and **Anne Abraham** were the first archaeologists to visit and identify the quarry location. Tragically Anne Abraham perished during that initial fieldwork.

Much of the history surrounding the story of Ramah chert can be found in Fitzhugh's *Environmental Archaeology and Cultural Systems in Hamilton Inlet, Labrador* (1972) and Loring's 2002 paper 'And They Took Away the Stones From Ramah': *Lithic Raw Material Sourcing and Eastern Arctic Archaeology* (<http://www.mnh.si.edu/arctic/html/Labrador/index.html>). Eagerly anticipated is a forthcoming volume edited by **Jenneth Curtis** (Parks Canada) and **Pierre Desrosiers** (Avataq) tentatively titled *Ramah Chert Studies*, which contains a broad sweep of papers addressing the current state of research in the study of the Ramah Chert quarries and the use of this stone by Indian and Paleoeskimo peoples throughout the Far Northeast and beyond. Our opinion is a biased one of course, but we trust that this recognition of the Ramah Bay chert quarries as a Canadian National Historic Site is the first step towards its recognition as a UNESCO World Heritage Monument.

WOODROW WILSON INTERNATIONAL CENTER FOR SCHOLARS POLAR INITIATIVE



The Polar Initiative will convene and foster discussion on research and programmatic activity on Arctic and Antarctic issues at the Center that investigates the geopolitical, human, and environmental challenges of the Polar Regions. It is not a new program area, but rather a

multi-program effort to coordinate activity and encourage investigation of important areas of the world that takes advantage of Wilson Center expertise in a variety of regions and issue areas.

The geopolitical changes resulting from the end of the Cold War, ongoing climate change, and the potential for greater economic and resource development have greatly increased the strategic importance of the Polar Regions. Managing the many changes emerging from this shift—including, but not limited to, environmental, economic, security, and human security issues—demands serious U.S. expertise. While there are other organizations in Washington that look at Arctic issues, no other group focuses on the Antarctic, and none seriously looks at economic, human, and environmental issues. The Wilson Center brand commands a lot of respect and there is widespread appreciation for our “no dog in the fight” analyses.

Areas of Focus: The Polar Initiative plans to examine the following sectoral issues:

- People (indigenous communities, resilience, health, mental health)
- Fishing and scientific cooperation
- Energy, particularly building on the Arctic energy publication the Center put out (deep sea, on-shore, off-shore)
- Business and economic initiatives and business/government cooperation (Arctic Economic Council, corporate social responsibility, social license)
- Maritime transportation (mapping, sea routes, search and rescue, infrastructure, insurance)

For more information please visit The Polar Initiative website: <http://www.wilsoncenter.org/program/polar-initiative> and follow @PolarInitiative on Twitter.

A SPECIAL THANK YOU TO THREE WISE MENTORS

By: Laura Sharp

When I first moved from Toronto to DC in 2011, the Arctic Studies Center (ASC) was the first place that kindly welcomed this Canadian with open arms to join **Bill Fitzhugh**, **Igor Krupnik** and **Stephen Loring** and **Lauren Marr** in planning the 18th Inuit Studies Conference. Igor was the first to acknowledge my background and Canadian connections in Arctic studies, and my research in and familiarity with Labrador serendipitously helped gain credibility with Bill Fitzhugh and Stephen Loring.

One successful conference and three years later I had become the ASC Research Assistant and was fortunate enough to have been mentored by and gotten to know Bill, Igor and Stephen and their many exceptional collaborators while supporting their various research projects, publications and events. My experience transitioning to a new country, city and surroundings for



Laura Sharp boards a ferry to the Bygdøy peninsula during the IPY Oslo Conference, 2010.

the first time turned into one of the most exciting experiences of my life. I have many fond memories of this time thanks to Bill, Igor, Stephen and Lauren. Their support continued when I found out I was going to become a mom; the ASC helped me prepare, celebrate and graciously welcomed me back when I was ready to return to the office.

So, when an opportunity with the Recovering Voices (RV) initiative came up last November, I was faced with a very difficult decision. The many skills and experiences that granted me an interview with RV I had acquired in large part through my experience with the ASC. Even though I would only be moving literally two doors down the hall, I knew it would be hard to say farewell to the three wise men of the ASC. Fortunately, and true to their character, Bill, Igor and Stephen were (although reluctantly, I learned after the fact) encouraging and supportive of me taking on a new opportunity. Now, as Recovering Voices evolves and grows, I am pleased that one of our core collaborations is with ASC. So even though I accepted to position and moved down the hall to join **Gabriela, Gwyn, Josh** and **Judith**, the ASC really didn't quite get rid of me altogether, for-



Image on the parting gift mugs that Laura left for Bill, Stephen and Igor. The main image is the center piece of the Arctic Journeys/Ancient Memories: The Sculpture of Abraham Anghik Ruben exhibition that was hosted during the 18th ISC.

unately for me. In leaving I wanted to thank them for the many experiences and memorable opportunities I enjoyed with the ASC. Many, many thanks again.

WELCOME MEGHAN MULKERIN TO ASC

In November 2014, **Meghan Mulkerin** joined the Arctic Studies Center as Program Coordinator and Web/Social Media Manager, coming to us from down the hall in **Dr. J. Daniel Rogers'** office. There, she was a Collections Specialist and Research Scientist leading a large cataloguing project on the River Basin Survey collec-



Meghan Mulkerin holds a replica narwhal tusk at Martin Nweeia's booth at the Arctic Spring Festival on May 9, 2015.

tions at NMNH, and researching climate change as it relates to human adaptive capacity, including warfare, peace, and migration in support of the NSF grant: Mason-Smithsonian Joint Project on Climate and Societal Modeling. While with Dr. Rogers, Meghan also made her mark on the internet with her social media outreach for the lab with a blog and twitter account, [@ArchaeologyLab](#). She has a B.S. in Anthropology (Classical Studies minor, Geology concentration) and a B.A. in

German from Grand Valley State University. Meghan earned her M.A. in Museum Studies from The George Washington University, where she was awarded the Marie C. Malaro Award for Excellence in Research and Writing for work on an NMNH collection.

Here at the Arctic Studies Center, Meghan has already begun to make a huge impact, taking the lead on planning the **Arctic Spring Festival** (See pg. 62) with the Office of Education and Outreach. She has also been working hard on this Newsletter, which is so packed full of great stories, it has grown to abnormal size! In between these projects Meghan has supported the publication of **Dr. Fitzhugh's** newest contributions, *Inuqat: Prehistoric Human Figurines in the North American Arctic*, co-authored with **Bernadette Driscoll Engelstad**, and *Bark Canoes and Skin Boats of Northern Eurasia*, co-authored with **Harri Luukkanen**. Now that the Arctic Spring Festival fever is over, Meghan will be leading the charge to bring the ASC website into the future, and expand our social media presence.

Meghan lives in North Bethesda, MD with her husband, Robert Radu, their cat, two rabbits, and soon-to-be-arriving baby girl. She enjoys reading, travelling, and art, and is an avid textile artist.

RESEARCH

ARCHAEOLOGY IN LABRADOR AND QUEBEC

By: *William W. Fitzhugh*

All stories have beginnings and endings, but this summer's fieldwork turns the proverbial truth on its head. It began in Rigolet in the Hamilton Inlet (Labrador) Narrows where I conducted my first archaeological research in 1968 and ended in Brador (Blanc Sablon, Quebec), (perhaps) concluding studies of the Southern Inuit I began in 2001. The summer ended up being a kind of a 'full circle' project, bringing me back to my archaeological roots and renewed ties with a community and friends I left more than fifty years ago.

Rigolet

Broomfield Island Inuit site, southwest Groswater Bay, view east.

At a Labrador cultural heritage conference in 2013 leaders from the town of Rigolet, Labrador, expressed interest in an archaeological survey of Double Mer, an arm of Hamilton Inlet that I have not been able to investigate during my studies in the late 1960s and early 1970s. Double Mer (named during the 18th century French settlement period) had been a popular winter habitation for settlers and Inuit families who summered farther east in Groswater Bay in the 19th and 20th centuries, but these old places and the region's earlier history were undocumented and unknown. Historically, Double Mer had been an important winter trapping area and served as an alternate travel route to central and western Lake Melville. Its rivers also provided access to hunting and trapping lands to the north as well as routes west of Cape Harrison to the Central Labrador coast. Our 2014 project was sponsored by the Nunatsiavut Archaeology Office and was conducted with its director, **Jamie Brake**, and his assistant, **Michelle Davies**. In addition to Double Mer we planned to investigate unexplored parts of the Narrows and the Backway, the eastern extension of Lake Melville.

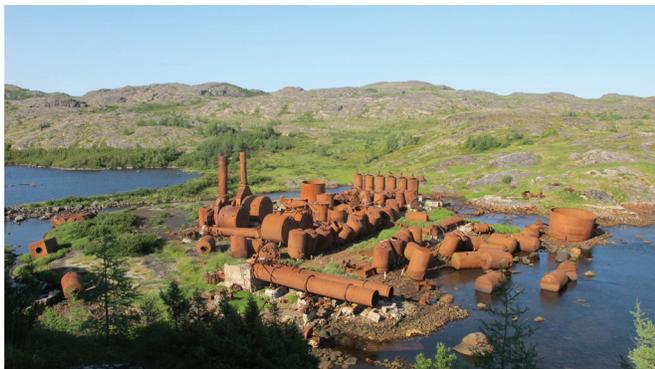
We found the archaeology of Double Mer difficult to find due to a lack of beach exposures, dense forest cover, and relatively few prospective settlement locations. The most promising regions were Paliser Point at the junction of Double Mer and the Narrows, Stag Head Cove, Ship Harbor, Partridge Point, and the

river mouth of Main Brook at the northwest corner of Double Mer. Historic and recent sites were located in all of these places, but the only prehistoric site noted was a set of Point Revenge hearths at Stag Cove Brook. Unlike Northwest River, where the Naskapi River had cut through a glacial moraine and subsequent uplift had formed a sequence of terraces, the rivers entering Double Mer were small and lacked moraines and suitable terrace formations for prehistoric settlement. Because Double Mer is surrounded by lowland forests, isolating sites earlier than the recent past will be a difficult and time-consuming task.

Following work in Double Mer we surveyed the islands and headlands in the eastern branch of the Narrows; the north side of the Backway from Henrietta Island to Hanniuk; several places on the mainland south of Henrietta; parts of the southeastern shore of the Narrows; and Broomfield Island at the eastern entrance to the Narrows. The most promising sites were at Hanniuk in the Backway and at Paliser Point at the entrance to Double Mer—both long-term Inuit settlement locales where we found 19th C. middens—and at Broomfield Island, at the southeastern entry of The Narrows, where we found a previously unknown Inuit winter village dating probably to the early-mid-19th century. Time did not permit detailed inspection or excavation at any of these locations, and large expanses of shoreline still need to be surveyed. Despite past archaeological research by the Smithsonian, Bryn Mawr College (**Richard Jordan** and **Susan Kaplan**), and recently Memorial University (**Lisa Rankin**), the Narrows, Backway, and Double Mer are known only from the large Inuit sites at Eskimo Island, Snooks Cove, and Double Mer Point. A long-term archaeological program in this ecologically-rich territory would reap great rewards; and the same could be said for the completely unknown southern shore of Groswater Bay, whose lowlands, points, and coves may rival its archaeologically better-known northern coast.

Cape North and Hawke Bay

Departing Rigolet at dawn on **Jamie Brake's** birthday, we proceeded south toward the Strait of Belle Isle but soon found ourselves weathered in a few miles west of Cape North. When the weather cleared we noticed a grass-covered point on the eastern shore of Curlew Harbor, and a brief reconnaissance revealed an Inuit winter village complex with two or possibly three house foundations. This site may have been recorded earlier by **Lisa Rankin**. Continuing south, we passed the islands, capes, and lowlands from Cape North to Spotted Island and Black Tickle, and as in earlier transits of this unexplored territory, we noted its great potential for archaeological and environmental studies: its low and varied topography, uplifted shores and beaches, and plentiful marine and terrestrial resources. South of Black Tickle we stopped to inspect Punch-bowl, the now long-abandoned 1980s Newfoundland



Hawke Harbor 1930s whaling site.

Government fishing station, and further south, the Newfoundland Whaling Company station at Hawke Harbor on the southeast side of Hawke Island. Operating in the late 1930s, this site today is a mass of huge rusting tanks, boilers, and winches perched on a narrow ledge between a lake and the shore. Deteriorating but largely intact, the site is another stark reminder of the booms and crashes of unregulated resource exploitation.

Hart Chalet Site, Brador



Hart Chalet Inuit site, House 1 trenches. View northeast.

The Hart Chalet Inuit village (EiBi-47) located west of the Brador River was originally identified by René Levesque in 1968, and **Clifford and Florence Hart** built a cottage here a few years later. Levesque considered the site to be Basque on the basis of roof tiles and large iron spikes. A Basque component may indeed be present, but our attention was drawn to the foundations of three Inuit sod houses containing Basque materials. Our 2014 excavations were to further define the houses, obtain dating materials, and to assemble a faunal collection for environmental reconstruction. The Hart site would provide a fourth excavated Inuit dwelling from the Quebec Lower North Shore and would help establish a broader basis for constructing Inuit history in a region that until recently had no archaeological evidence of permanent Inuit occupation.

We had tested the Hart Chalet site's three sod houses previously and in 2013 excavated a 1x8 m trench through the middle of House 1. This summer we ex-

panded this trench into a 2 x 8 m cut and opened a 2x10 m east-west trench inside the front wall of the structure. The expanded N-S trench revealed that the floor had been paved with wood planks and shattered bricks rather than the usual rock slabs. A wood-paved sleeping bench was inside the rear (north) house wall. A large mass of grey stoneware sherds from a single vessel were found on a raised bench east of the house entry doorway. At the edge of the west sleeping platform we found an interesting cache of artifacts: a piece of



Sample of Hart Chalet House 1,2 artifacts.

iron bar stock, an iron arrowhead, an iron saw blade fragment, a small sheet of copper, a lead-like mineral mass, and frag-

ments of bottle glass and tile. On the western bench and within the sods of the west wall were iron spear and arrow foreshafts, a caribou skull, blue glass beads, and stoneware. Midden deposits outside the west wall produced nails, a bead, stoneware, caribou and fish bone, and shell remains.

Although we were not able to excavate House 1 completely we found it to be a semi-subterranean dwelling with a sub-rectangular wall constructed of layered sods insulated on the outside by midden accumulation. Entry was through a 4-meter long passage extending to the south. No traces of a cold trap or a stone-framed lintel door were present, and the inner house doorway seemed to be framed only by piles of small rocks. The internal house floor was not paved with stone slabs, and numerous small nails in the thin floor deposit suggested the floor had been nailed planks.

A test pit in the inner end of the entry passage of House 2, a few meters west of House 1, revealed a rock-paved floor and a whale mandible roof support. In the doorway we found burned soapstone pot fragments, a whalebone harpoon foreshaft, a whalebone sled-runner, nails, and stoneware, along with large amounts of caribou bone. A previous test pit in the House 2 entry had produced an ivory needlecase. The inner portion of the House 2 entry passage and house floor near the door was paved with flat stone slabs. As in House 1 there was no cold trap or large stone doorway and lintel construction. The door seems to have been framed by timbers placed on piles of rocks.

Finds from House 1 and 2 indicate a brief occupation. The house interiors show no evidence of refurbishment,

and relatively few finds were present. The middens are predominantly of caribou bone with some seal and other land animals. Whalebone was used for sled runners and foreshafts but no baleen was present and there was no evidence of active whaling. European materials were a much smaller part of the recovered assemblage than at Hare Harbor, and relatively few tiles and almost no earthenware were present. Iron spikes were smaller and fewer, and iron tools like knife blades were not found, except as tanged arrow and spear points. Similar types of glass beads were found in both sites, but were few in number at the Hart site, which also produced a ground stone bead. Overall, the Hart site seems to date to the mid-late 17th century, like other Inuit villages at Hare Harbor and Little Canso Island, but appears to have had less contact with Europeans.

While working at Hart Chalet, we inspected the limestone barrens east of the Hart's winter house in Brador where we re-located the two early Maritime Archaic mounds **René Levesque** excavated in the late 1960s. These structures are among the oldest archaeological sites known in eastern Quebec and probably date to the same period as the L'Anse Amour mound in Forteau, Labrador. Other similar features may still exist in the vicinity. During another excursion we explored the old village site known as Five Leagues, between Middle Bay and St. Paul River. With the assistance of **Chesley Griffin**, we located a Basque oven on the shore south of the houses, early boulder pits and food caches on high beaches, and two shore-side boulder-walled houses of recent age but unknown cultural attribution (17-19th C. shipwreck refugees?). While visiting the Whitely Museum in St. Paul with **Garland Nadeau**, its curator, **Lora-Lee Thomas**

showed us an ornate brown-glazed, pedestalled earthenware rechauffeur (warming) vessel (Basque?) that her uncle found years ago while dredging for scallops near Bonne Esperance Island. More archaeological surveys are needed in this location, whose sheltered coves, small boat harbors, and easy access to fishing and marine mammal hunting would have been attractive to early European visitors.



Early Maritime Archaic burial mound in Brador excavated in 1968 by René Levesque.

our lively hound, **Bodi**. Our goal was to use the Hart site as a pilot project for sharing field-produced video educational material with the Natural History Museum's new Q?rius Education Center. Armed with his video gear and a contract from Q?rius, Ted and Sandra recorded our work and interviewed us and some of our Brador friends, shot scenics, and edited the day's take into short, punchy segments. Assisted by **Sorena Etheridge** in her capacity as local rep for the Quebec-Labrador Foundation (QLF), Ted up-loaded our daily takes directly to Q?rius through the local Blanc Sablon TV station. We also shot interviews at

the Middle Bay Museum, which has excellent displays of local archaeology and history.

The 2014 season was sponsored by the Arctic Studies Center's **Ernest Burch Endowment** and the Nunatsiavut Archaeology Office of the Labrador Inuit government. **Perry Colbourne** skippered Pitsiulak; hospitality was offered by **Boyce Roberts** and **Michelle Weist** of Quirpon; **Gina Nordhof** of L'Anse aux Meadows; and by long-time friends **Charlie and Jean Tookoshina**, **Bert and Tib Allen**, and **Ozzie and Joyce Allen**, and others of Rigolet. In Brador we enjoyed the



Glazed pedestalled rechauffeur or warming bowl with strap handles, medallions, and wavy rim, found in a scallop dredge near Bonne Esperance, St. Paul.

incomparable hospitality of **Florence and Clifford Hart**, who allowed us to excavate their chalet backyard. **Chesley Griffin**, **Garland Nadeau**, and **Lora-Lee Thomas** provided assistance and local information in St. Paul. Special thanks are due to **Jamie Brake** and **Michelle Davies** of NAO, and to my field assistants **Alaina Harmon** (Smithsonian) and **Mariel Kennedy**, a University of Notre Dame intern. **Ted and Sandra Timreck** produced our video documentation, and **Anja Herzog** catalogued the collections. **Laura Fleming-Sharp**, **Marcia Bakry**, and **Jordan Boggan** assisted in report preparation, and intern **Austin Tumas**, aided by **Meghan Mulkerin** and **Kathryn Leonard** turned our voluminous cache of notes, photographs, and diagrams into a high-quality final report.

ARCTIC ‘CRASHES’: ASC ADVANCES ITS HUMAN-ANIMAL-CLIMATE RELATIONS PROJECT

By: Igor Krupnik

In February 2014, the ASC team received the Smithsonian Grand Challenges Consortia award to implement its multi-disciplinary project Arctic Crashes: Human, Climate, and Habitat Agency in the Anthropocene (see ASC Newsletter 21:19–22). The project officially started in March 2014; the \$100,000 grant was originally given for 15 months, till June 2015 but was eventually extended till fall 2015, to include the second Arctic field season for the project team. In late May 2014, the first field crew under **Aron Crowell** headed to the fieldwork in Yakutat Bay, Alaska (see *Crowell, this issue*).

The ‘Arctic Crashes’ project is aimed at the theme of human-animal relations in the rapidly changing Arctic that is of utmost relevance to scientists, Arctic people, resource managers and agencies, and policy-makers. The field is huge and a relatively small program, such as ours, would never achieve the needed circumpolar coverage and required focus on several animal species that are of critical importance to Arctic people. Therefore, our project from the beginning was organized around several local and species-focused ‘case studies’ in Arctic North America – some in the Western Arctic (Alaska and Bering Sea) and some in the Eastern Arctic and North Atlantic. In summer-fall 2014, four teams went to the field: those led by **Aron Crowell** in Yakutat Bay (Tlingit historical subsistence hunting of harbor seals), **Bill Fitzhugh** (historical Inuit

and harp seals in Northern Québec), **Stephen Loring** (Innu and James River caribou herd in interior Labrador), and **Walter Adey** (Baffin Island to Labrador sea cruise to collect data on bottom coralline communities as proxies to historical sea ice and ocean temperature change).

The stories of each of these 2014 field operations are presented in the sections below. In addition, **Alaina Harmon** conducted surveys of the NMNH arctic mammal collections at the Vertebrate Zoology and Paleobiology Departments (with the support of our colleagues, **Kris Helgen**, **James Mead**, **Charles Potter**, **Don Wilson**, and **Nicholas Pyenson** – see below). **Igor Krupnik** summarized historical data on the distribution of the Pacific walrus sub-populations (stocks) in the Bering and Chukchi Seas, from 1825 to the present, assisted by biologists **G. Carleton Ray** and the late **Lyudmila Bogoslovskaya**. In all, our studies covered four Arctic species—caribou, Pacific walrus, harbor and harp seal (plus many more in the NMNH osteological collections)—and various groups of polar indigenous peoples, Inuit, Innu, Siberian Yupik, Chukchi, Tlingit, and others, who interacted with them over generations.



In September 2014, a massive herd of estimated 35,000 Pacific walrus came ashore in Point Lay, Alaska. Its unusual large size points to a serious disequilibrium in walrus-sea ice-habitat system. Source: NOAA

In 2015, the ‘Arctic Crashes’ crew is planning to expand its focus, both in terms of field geography, the number of species covered, and the spectrum of indigenous communities to be engaged in our research. We are also seeking to bring more partners—archaeologists, paleobiologists, historians, indigenous experts, wildlife and environmental managers—to the ‘Crashes’ study. A major step in that direction was undertaken in winter 2015 by Aron Crowell and Igor Krupnik, who jointly planned an ‘Arctic Crashes’ session for the 42nd annual meeting of

the Alaska Anthropological Association in Anchorage. The full report on that day-long session on March 5, 2015, with 14 presented papers, covering ten species (polar bear, Pacific walrus, caribou, bowhead whale, white whale, fur seal, sea lion, harbor seal, ringed seal, and salmon), primarily from the North Pacific–Western Arctic area will be published in the next issue of the ASC Newsletter. Following the next field season in summer 2015, we plan to organize another ‘Arctic Crashes’ symposium in early 2016, this time at the Natural History Museum. The second session will be also focused primarily on the Eastern Arctic, i.e. Canada and Greenland, also Northeast Russia. Papers from

the two sessions will then be published together in the project's final collection volume that will be the main product of our two-year study on the changing relations among of Arctic Peoples, Animals, and Climate.

STILL SEARCHING FOR THE TRAIL TO CARIBOU HOUSE: SMITHSONIAN-TSHIKAPISK RESEARCH IN NTESSINAN

By: *Stephen Loring*

The Caribou House project is a community initiative between Smithsonian anthropologist **Stephen Loring**, colleagues **Anthony Jenkinson** (Tshikapisk Foundation), and **Chelsee Arbour** (Memorial University [MUN]), Innu colleagues, informants and experiential educators from the community of Natuashish, Labrador, and the Innu Nation. The project combines archaeological practice with indigenous knowledge pertaining to the interaction between caribou herd dynamics and human beings over time.

Perhaps some of the most evocative descriptions of the interior of northern Labrador—it's caribou country—are contained in **William Brooks Cabot's Labrador** (1920) in the accounts of his intrepid wanderings—sometimes alone, sometimes with a companion or two—between 1903 and 1910. Entranced by the opportunity to experience something of the traditional Innu caribou-hunting culture, he followed the old Innu travel routes from the coast of Labrador near Davis Inlet to the traditional Innu fall caribou hunting camps on Mistinipi Lake and George River.

Doubtless Cabot was aware of the old Innu stories about the Master of the Caribou and his mountain home in the northern Labrador barrens. The Innu believe that Caribou House was a hollow mountain where the caribou dwelled when not in the environs of men. Coincidentally its presumed location in the heart of the Tornat Mountains is both the location of the George River caribou herd caving-grounds as well as the source of a lithic raw material that had been used by Indian and Inuit hunters for more than 7000 years. The trail to Caribou House is the metaphor for a collaborative research project that utilizes the converging research trajectories of archaeology, ethnohistory, oral history, and ecology in an exploration of the characteristics and consequences attending a specialized caribou-subsistence economy

in Labrador, from its earliest appearance in conjunction with pioneering Paleoindian-Early Archaic hunters down to the present day.

Some of the earliest evidence for the emergence of social complexity among native peoples in post-Pleistocene North America comes from northern Labrador, where elaborate mortuary traditions and large social aggregations appear around 7000 years ago. It has been suggested that the dependable characteristics of the marine ecosystem formed the subsistence base for these pioneering populations. However recent work in the interior of Quebec-Labrador at caribou-crossing places suggests that the significance of caribou for early hunters has been over-looked. Archaeological survey and excavation coupled with the observations and knowledge of traditional Innu hunters offers an unprecedented opportunity to interpret the role of caribou predation in the evolution of hunting and gathering cultures in North America and theoretically to contribute to an understanding of the relationship between subsistence practices and the maintenance of social boundaries and identities that figured so prominently in the success of early human societies in both the New World and Ice-Age Europe.



Cabot's 1906 photograph of a tent (tastueikantshuap) at Mistinipi. This tent-ring was partially excavated during the 2014 field-season.

Field Work

The "summer"/fall 2014 Caribou House Project had two principle objectives: (1) Archaeological

documentation of a prominent 19th century Innu caribou crossing camp on Mistinipi Lake that was visited by William Brooks Cabot in 1906, coupled with (2) an intensive site survey of a portion of the Mistinipi Lake basin to document the antiquity of caribou hunting strategies in the Quebec-Labrador barrens.

Early in September, Stephen Loring, Chelsee Arbour (MUN) and **Richard Nuna** (Chief Environmental Negotiator with Innu Nation) flew in a chartered Twin Otter (thank-you **Air Labrador** and Air Labrador's senior pilot, **Lester Powell!**) landing on an esker that is a prominent landmark adjacent the river-like northeastern-most extension of Mistinipi Lake. We were soon reunited with our colleagues, Anthony Jenkinson and **Marcel Ashini** who had arrived earlier by float-plane and who had established a camp adjacent to the 1906 camp that Cabot had utilized.

For a month, weather permitting, we conducted site surveys of the north-eastern arm of Mistinipi Lake, locating eight historic late-19th/early-20th century Innu camps that were contemporaneous—or nearly so—with Cabot's 1906 camp, and six pre-contact ancestral Innu sites. The latter were all quite small, comprising only one or two hearths and a scatter of Ramah chert and quartz debitage. Situated adjacent to a prominent system of caribou trails, these sites are all interpreted as briefly occupied hunting and butchering sites used by small groups of hunters.

Much of the 2014 fieldwork was directed at documenting the footprint left behind by Innu families in the late 19th century at and adjacent to Cabot's 1906 camp. His observations and photographs form the only extant eye-witness account of the Innu at their traditional fall gathering caribou hunting camps in the interior of the Quebec-Labrador peninsula. When Cabot arrived at the camp in September, 1906, a small Innu band of 20-25 people, including four men and as many boys in the preceding weeks had speared over a thousand caribou as they swam across the lake narrows!

The 1906 camp, with its detailed historical description and photographs, provides a unique opportunity to compare and ground-truth historical observations with archaeological documentation. In addition to locating, mapping and photographing the historic Innu sites, including stone caches and



Marcel Ashini (left) and Richard Nuna (right) in the "dug-out"/ hunting blind at the 1906 Innu camp on Mistinipi Lake. They hold a photograph taken by William Brooks Cabot of Richard's ancestor sitting in the exact same place. In 1906, having already speared hundreds of caribou at this crossing place, the men were enjoying watching the stragglers cross over. Photo: Stephen Loring.



Ancestral Innu (ca. 800 AD) hearth at Mistinipi with Chelsea Arbour. Photo: Stephen Loring.



Excavated tastueikantshuap, a late-19th century raised earthen-wall tent-ring at Mistinipi. Photo: Stephen Loring.

hunting blinds, we were able to excavate several structures including a possible shaking-tent locality and a pair of circular tentrings—the remains of tastueikantshuap—and a portion of their associated "middens". I put middens in quotation marks since an underlying tenet of traditional Innu culture was the ceremonial and ritual attention to all aspects of the disposal of animal (especially caribou) remains, which were certainly not deposited haphazardly. The assemblage from these sites attest to the relative self-sufficiency of Innu families who, while they had limited access to sources of European goods (rifle cartridges, seed beads, and tobacco paraphernalia), still maintained their independent life in the interior of Nitassinan.

Previous field-seasons at near-by Kamestastin and Border-Beacon had lingered on through mid-October. Not only is this a very beautiful time to be in the country, with its relative absence of mosquitos and black-flies, and the astonishing beauty of the tundra's fall colors; it is also the time when the caribou pass through on their autumnal migration. However this year it began snowing on September 22nd and barely let-up for the next ten days, bringing a precipitous conclusion to archaeological fieldwork and posing a great challenge to Lester Powell in retrieving us from Torn-gat's frozen embrace.

Final Thoughts

Arguably the most significant development in northern anthropology in the last decade has been

the commitment to conduct research within a community paradigm, one that recognizes the potential of “traditional indigenous knowledge” and oral history to provide an important balance to the perspectives and research strategies of scientific investigators. The Arctic Studies Center has been at the forefront of this movement and is widely recognized for its leadership role in initiating community-based research throughout the circumpolar world. Since 1999 the ASC has been conducting research in close collaboration with the Innu Nation and Tshikapisk Foundation. In addition to conducting important archaeological research on the nature of Innu and ancestral-Innu land-tenure and caribou predation in northern Labrador, the community goals of the program include working with Tshikapisk educators and Innu elders to systematically document and record the ecological knowledge of elderly Innu hunters and their wives pertaining to the behavior and ecology of the barren ground species, including caribou, bear, and wolverine that are derived from a lifetime of observation and from oral tradition.

This research has the potential to significantly influence our understanding of the social and ecological landscape of the earliest hunting peoples in northern North America. It is a unique opportunity to reveal the nature, significance, and consequences of caribou predation not only in Labrador but, by analogy, to early Pleistocene hunters in North America and Europe.

The 2014 fieldwork at Mistinipi was made possible by financial support provided by a Smithsonian Institution Scholarly Studies Award in the Arts and Humanities and by the Innu Nation. We are further appreciative of the Innu Nation for allowing Richard Nuna to accompany the team to Mistinipi. His and Marcel Ashini’s contribution to the success of every aspect of the project was gratefully appreciated. Fieldwork was conducted with a permit from the Québec Ministère de la Culture et des Communications, thanks especially to **Valérie Janssen**. And thanks once again to Lester

Powell for his intrepid craftsmanship in all aspects pertaining to Twin Otters; I’ll never forget his remark upon his second landing at the Mistinipi esker, with the clouds down on the ground, “Gee, kinda hard to land when you can’t see anything,” and for getting us airborne, which necessitated driving through a snow bank and climbing out of a kettle hole... and that’s another story for another time!



September 22: “Hard to do archaeology when there is a 60cm sterile white layer over everything.” Photo: Stephen Loring.



Subsistence practices trump fieldwork. A pause in site survey results in lake trout for dinner. Photo: Stephen Loring.

HARBOR SEAL POPULATION DYNAMICS AT YAKUTAT BAY, ALASKA: INVESTIGATIONS IN 2014

By: Aron Crowell

Fieldwork on Alaska Native subsistence hunting for harbor seals (*Phoca vitulina*) and on the historical population dynamics of this species was conducted at Yakutat Bay, southeast Alaska, during May – July, 2014. The work included interviews with Tlingit seal hunters; video documentation of two seal hunts in the ice floe pack near Hubbard Glacier; bio-sampling of seals taken during the hunts; historical and archival research; and archaeological excavations at the Old Town site (A.D. 1500 – 1750) where a large sample of well-preserved seal bones dating to the Little Ice Age (LIA) was recovered. Archaeological and ethnohistoric data recorded during three years of National Science Foundation-funded research (2011-2013) are also being incorporated.

An initial assessment suggests that seals have always been the most important wild food resource for the residents of Yakutat. Today the subsistence harvest is higher there than in any other Alaska Native community (255 killed in 2012). However, both the resident seal population and the numbers hunted have varied greatly over time. Prehistoric harvest levels have not yet been estimated from archaeological data but it is unlikely that the pre-contact Eyak/Tlingit population of 300 – 400 people, using bone-tipped harpoons, put significant hunting pressure on a seal population that must have been many times larger than at present.

Seal hunting intensified greatly in the late 19th century, spurred beyond subsistence needs by a growing commercial market for seal skins and the availability of breech-loading rifles. It appears that 3000 or more animals were being killed each year by Yakutat hunters during the 1880s – 1890s, based on scant data culled from historical accounts. Even greater numbers were taken during the bounty hunting era (1927-1972) when commercial salmon fishing interests promoted large scale slaughter of the animals. Government bounty data indicate that on average over 10,000 harbor seals were shot per year in southeast Alaska from the late 1920s through the 1960s, a large but as yet unknown proportion of them at Yakutat Bay. A boost in the market value of seal hides during the 1960s may have pushed the number even higher. The fact that annual takes of this magnitude could be sustained for decades suggests that the original seal population at Yakutat must have been very large, perhaps in the range of 35,000 – 50,000 animals, with substantial numbers also found at nearby Icy Bay and Dry Bay. Yakutat elder George Ramos, Sr. remembers that in the 1960s the ice floes were “black with seals.”

It is therefore significant that the well-documented population crash of harbor seals that has taken place across southern Alaska in recent decades (60-70% since the 1970s) occurred after the commercial and bounty hunting eras ended. Today the harbor seal population in Yakutat Bay is only about 1700. The modern crash cannot be attributed to Alaska Native subsistence hunting that since 1972 has accounted for only a small fraction of the numbers of seals that were being taken annually throughout the late 19th and early 20th centuries. An alternative explanation, based on the impact of warming sea temperatures and changes in the marine food web is under consideration by marine biologists.

The Yakutat research will contribute to this hypothesis by providing baseline data on LIA sea temperatures derived from O18/16 ratios in marine bivalves excavated at Old Town and other archaeological sites. In addition, the DNA of modern Yakutat harbor seals (sampled in 2014) will be compared to DNA extracted from historical and archaeological specimens (bones and teeth) to monitor the in-migration of animals from other Gulf of Alaska subpopulations, which may have had a substantial effect on maintaining high numbers in Yakutat Bay.

ARCTIC CRASHES – HARP SEALS AND ESKIMOS IN LABRADOR AND THE GULF OF ST. LAWRENCE

By: William Fitzhugh

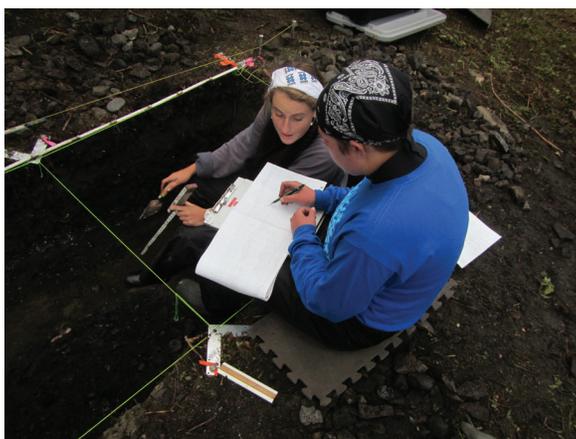
Harp seals have been intertwined with human history ever since people began living along the Arctic and Subarctic shores of the North Atlantic. Harps were quite likely a resource for Upper Paleolithic cultures of Europe and for hundreds of years and more recently have been a mainstay for Saami, Finns, and Russians living around the White Sea. In the North-west Atlantic, harp seals have been important for Maritime Archaic Indian cultures between 8000-4000 years ago from Maine to northern Labrador and have sustained Paleoeskimo, Inuit and Innu peoples who occupied the regions in the Canadian Eastern Arctic and Greenland, south to Newfoundland and the northern Gulf of St. Lawrence. The latter regions have been investigated by the Smithsonian for more than thirty years. The presence or absence of harp seals may have been a major factor, along with climate change, for cultural migrations and boundary changes between these culturally-distinct populations.

Field Program 2014

Testing this hypothesis became the focus of a sub-



Yakutat Tlingit seal hunters in the ice floes near Hubbard Glacier, May 2014.



Students excavating seal bones at the Old Town archaeological site, Knight Island, Yakutat Bay (2014)



Concentration of seal bones in midden at the Old Town archaeological site, Knight Island, Yakutat Bay (2014)

project of the ASC's "Arctic Crashes" project in 2014-2015 as part of the author's on-going research into Paleoeskimo and Inuit culture development in Labrador, Newfoundland, and the Quebec Lower North Shore. Arctic Crashes is exploring the causes and effects of fluctuations in northern animal populations and its impact on human societies. The recent discovery of Inuit winter occupations on the LNS west of Blanc Sablon has provided a new data-set with which to test the climate/pack-ice/southern Eskimo migration model in which three culturally and chronologically distinct Eskimo/Inuit groups occupied—and then abandoned—the northern Gulf of St. Lawrence and Island of Newfoundland: Groswater Paleoeskimo 2500-2200 BP; Newfoundland Dorset 1800-1400 BP; and Labrador Inuit AD1500-1750.

With support from the Smithsonian's Grand Challenge Program, we conducted field surveys and excavations in July and August 2014, from Hamilton Inlet (Labrador) to Brador and St. Paul Bay on Quebec's LNS. Fieldwork was facilitated by the ASC's research vessel *Pitsiulak* was staffed by a field team including **Alaina Har-**

mon and Notre Dame student, **Marielle Kennedy**. **Ted Timreck** and **Sandra Kingsbury** produced video documentation for the ASC and NMNH's Q?rius Education Center. Our activities concentrated on excavations at the Hart Chalet Inuit winter village site near Brador (Quebec) where we spent ten days conducting excavations in Houses 1 and 2 and recovered a large sample of bone and shell midden material dated to ca. 1700. This sample is now being analyzed by **Claire St. Germaine** of University of Montreal. After species identifications have been made we will be submitting samples for isotopic analysis to determine water temperature and other characters suitable for environmental reconstruction. (See below for related Crashes studies of the paleo-marine environment conducted by Walter Adey and colleagues.)

Project Background

Thirty years ago when we identified major north-south movements in Labrador's Eskimo-Indian boundaries, correlations between these changes and climate cycles identified in the pollen records and Greenland ice cores suggested climate as the primary causal factor. The correlation was particularly strong with the distribution of

Eskimo groups, who were heavily dependent on sea ice and its associated fauna. The mechanism suggested was shifts in the duration and southward extent of seasonal pack ice. Cooler weather brought more pack ice south and produced longer winters in coastal regions. Eskimo resources that came with the pack ice were ring, harp, bearded, and bladdernose seals, and walrus and bowhead whales. We also knew that the historic period Labrador Inuit had expanded their whale-hunting culture into areas of central and southern Labrador formerly occupied by the Innu. But earlier Paleoeskimo groups like the Dorset and Pre-Dorset were walrus and seal hunters, not whalers. Dorset Paleoeskimos expanded far south of the Thule/Labrador Inuit boundary, occupying the entire Island of Newfoundland and the nearby northeastern shore of the Gulf of St. Law-

rence. What was it about the pack ice that enabled this Dorset expansion about 2000 years ago, as well as an earlier Groswater expansion, also including all of Newfoundland around 600 B.C.? Walrus remains are not common in Groswater and Dorset sites in Newfoundland, but harp seals are present in great numbers. The more that we researched



Hart Chalet site under excavation by Alaina Harmon and Mariel Kennedy in August 2014. View north through entry passage into house interior.

the question of early Eskimo expansions and retreats from their maximal southern limits, the more it became evident that the answer must be found in changes in the distribution of pack ice and harp seals.

Harp Seal Biology and Ecology

Harp seals are the most abundant marine mammal in the northwestern Atlantic—some 6-9 million animals. Their biology, ecology, and migratory behavior (Sargeant 1991) have been investigated in detail due to the species' economic importance to traditional and commercial hunters from Greenland to Newfoundland, and because of the controversy over the commercial hunt of its new-born 'whitecoats' around Newfoundland and in the Gulf of St. Lawrence. Harp seals migrate annually from Baffin Bay and Davis Strait in large companies of 20 to 100 or more individuals. The migration strikes the northern Labrador coast in late October or November and proceeds south in waves, with animals hugging the shore and entering the exact same bays and island passages year-after-year just as ice begins to form. Labrador Thule and 16-18th C. Labrador Inuit sites contain large numbers of harp seal bones. During the 19-20th C. thousands of harps were

caught annually by Inuit and Europeans with rifles and nets along the Labrador coast and the Quebec Lower North Shore. A Newfoundland hunt (both traditional and commercial) for adult harps and white-coats has been conducted off-shore on the floating pack-ice by ship-borne hunters since the mid-19th century.

The main mass of the harp migration takes several weeks to pass any given location. Reaching southern Labrador, part of the herd remains on the newly-formed pack ice east of southern Labrador and northern Newfoundland in a region called “The Front.” The other segment passes with the drifting ice through the Strait of Belle Isle into the Gulf of St. Lawrence. Part of this group hugs the Quebec coast west to Natashquan and Mingan where they remain a few weeks feeding before turning south to their birthing area on the ice floes north of the Magdalen Islands. The rest of the Gulf herd passes south along the west coast of Newfoundland before re-grouping north of the Magdalens. They remain here and in other areas of stable ice throughout the winter. In February and March, the females give birth on the ice to pups known as white-coats. The mothers tend and feed their pups for several weeks as they cannot feed themselves or even dive because the thick furry white coats that keep them from freezing on the open ice are too buoyant. When their blubber has thickened and the white-coats have been replaced by shorter hair, they begin to swim and feed on their own.

In April, the adult harps gather again, this time to bask in the sun and to moult, and when the pack ice melts in April and May, they head north in small companies. Adults leave first, then the young, following a hydrographic feature known as the “Eskimo Channel” that parallels the west coast of Newfoundland. It is this northward migration that was the primary target of Port au Choix Dorset hunters, as their route passes close to shore at Pointe Riche. After leaving Newfoundland the migration is generally too far off-shore in the outer pack off Labrador to be accessible to shore-based hunters and reaches the summering grounds around Greenland and Baffin Bay in June and July.

Like the arrival and departure of geese and of salmon, the harp migration was a relatively dependable phe-

nomenon during the historical period. Catch statistics varied considerably though, as a result of variable hunting access due to storms, dangerous ice, or inaccessible locations far from shore. Throughout the historical era the harp catch was a crucial early winter and spring resource to the Inuit, European settlers, and some Indian groups throughout Labrador, along the Quebec LNS, and northern and western Newfoundland. When unavailable due to population decline, abandonment of the Gulf, or inaccessibility, the loss of harp seals caused hardship for European settlers, and for traditional cultures, it could spell disaster.

It has long been known that the economy of the Philip’s Garden Dorset site at Port au Choix, one of the largest Paleoeskimo sites in the Eastern Arctic and Subarctic, was based predominantly on harp seals. This dependence, particularly at the key site of Port au Choix, has led to speculation that a change in migration route or a precipitous population crash may have caused the site’s abandonment, and subsequently, in a domino-like effect, the disappearance of Dorset culture throughout the rest of Newfoundland (Bell and Renouf



Whale bone and caribou antler implements from Hart Chalet Inuit winter village site (House 1).

2008, 2011; Renouf and Bell 2009). In earlier years, the discussion was all about the ice—how close and how thick it was; where was it moving; and how to get to it—because this was where harp seals congregated. Every year conditions varied from region-to-region, but western Newfoundland in early spring was where seals could be expected most dependably (Hodgetts (2003, 2005; Hodgetts et al. 2003), especially at Port au Choix where the cape bordered the Harp seal migration north following the Eskimo Channel (LeBlanc 1996, 2000). For many years local hunters have reported that shifting spring winds and currents in the Gulf ice sometimes caused harp migrations to shift from western Newfoundland across to the Quebec Lower North Shore, taking the animals out of reach of Newfoundland hunters (D. Sargeant pers. comm. 1972). Similarly, LNS hunters frequently speak about winters when harps become unavailable during their early winter migration because of lack of ice or from ice having been blown too far off-shore to reach with small boats (pers. comm. with Harrington Harbor hunters, 2001-10; Murray 2011).

Archaeozoological studies have made cultural and environmental reconstructions more specific. Hodgetts et al. (2003), citing a decreasing percentage of harp seal bones and diversification of diet to include more fish and birds in the later Dorset components at Port au Choix, suggest a broadening of the diet and less dependence on harp seals than in earlier years. Changes like this could be a response to reduced harp seal availability. Citing chronoid midge frequency changes in sediments from nearby Bass Pond, (Rosenberg et al. 2005) suggested that terrestrial warming at Port au Choix peaked at 1100 BP, coincident with the end of the Dorset occupation. Marine pollen transfer function studies off southwestern Newfoundland (Levac 2003) indicated a warming of Gulf waters at this time. Based on these studies, Renouf and Bell (Renouf and Bell 2009; Bell and Renouf 2011:37) speculated that climate warming may have undermined sea ice conditions and destabilized the harp seal population and its migration routes, ending Dorset tenure at Port au Choix, and through cascade effects, severing Dorset contacts with Labrador and bringing an end to Dorset culture throughout Newfoundland.

Based on observations of the past few years, a variation of this hypothesis may be suggested that more explicitly links advances and retreats of Groswater, Dorset, and southern Inuit occupations south of Cartwright to cycles of harp seal availability. Johnston et al. (2005, 2012) report that, since 1996, the formation of pack ice in the Gulf has declined dramatically, such that in many areas there is no ice at all, and where it is present it is weak and breaks up in storms. This situation has become even more dramatic since 2007 and has been widely reported in the press. If ice thins or disappears before the whitecoats have molted, they usually drown. The winters of 2010-2012 in the northern Gulf were so mild that many

areas had no ice, and female seals had to give birth in the water or on shore. When this happens pups drown or are abandoned and die on shore or are lost to gulls and other predators. Poor ice conditions are thought to have resulted in a large losses of pups in 1981, and in 1998-2005.



Seal mandible from Hart site H1 midden which produced shells and large amounts of caribou bones.



Hart Chalet House 1 west midden, where shells, mammal and fish bones were recovered.

In July 2010, during fieldwork on the Quebec LNS, we found harp pup carcasses on-shore, and local hunters told of “thousands” dying in the vicinity of their villages. Without the winter ice platform, wildlife officials cannot conduct aerial population counts, so the effect of these recent low-ice winters on the population is not easily quantified. Johnston et al. (2005) documented a significant reduction in sea ice cover on the east coast of Canada since 1995.

These data show cyclicity in ice presence and absence that seems to be keyed to the North Atlantic Oscillation. A more recent study (Johnston et al. 2012) using satellite photography has shown that “warming in the North Atlantic over the last

32 years has significantly reduced winter sea ice cover in harp seal breeding grounds, resulting in sharply higher death rates among seal pups in recent years.” This study found that seasonal sea ice cover in all four harp seal breeding regions around the North Atlantic has declined by up to 6 percent each decade since 1979, when satellite records of ice

conditions began, and that in low ice years virtually all the young of the year die. Whether the current pattern will persist long enough to have a significant impact on harp seal population remains to be seen, because these losses can take a decade to have an effect, after the current cohorts reach sexual maturity. If the ice does not return, the Gulf portion of the herd will decline or disappear, and the remaining animals will have to shift to the Labrador Front or to other locations where pack ice remains. If this happens, it will result

in the loss of the most dependable marine mammal resource in the eastern Gulf and the one that has been the sustaining resource for southern Dorset and Inuit population extensions. Its negative impact on Labrador Eskimo populations would diminish northwards, since harps would still be migrating south, though in smaller numbers, to whelp on the Labrador Front. Its importance to Maritime Archaic and later Indian populations is difficult to determine, because their economies were more diversified, judging from their settlement systems and rare instances when faunal remains or organic tools have survived.

Ice cover is the *sine qua non* for harp seal availability in the Gulf. Warmer temperatures, both of sea water and air, have been steadily reducing the winter and spring build-up and persistence of pack ice in the Labrador Current. Owing to the narrow and shallow Strait of Belle Isle most of this winter ice does not enter the Gulf but rather follows the south-moving Labrador Current along the northeast coast of Newfoundland. For this reason the amount of Gulf pack ice that forms is mostly dependent on local conditions, especially wind and temperature, which can vary depending on whether air masses are Arctic or Atlantic in origin. For the past several years conditions have produced little or no ice, and a strong correlation has been found between Gulf ice and the North Atlantic Oscillation (Johnston et al. 2005, 2012). According to this research we may expect the trend toward low ice years in the Gulf to continue for some time. Since rising temperatures are generally thought not to have reached the peaks known from the Hypsithermal or Medieval Warm levels, the loss of ice in the Gulf in recent years suggests that these waters may have been free of winter ice even in periods of moderate warmth. If so, the Gulf harp herd may be seen as a marginal or episodic population that comes and goes in step with climatic cycles. While the loss of the Gulf harp population may not have serious consequences for Labrador and possibly eastern Newfoundland, which are 'upstream' in the harp southern migration, it would cripple intensive adaptations to this resource in the northern and eastern Gulf. As a result, it seems likely that climatic conditions controlling the appearance and disappearance of winter ice in the Gulf have also governed whether cultures with a high degree of dependence on this one marine resource, most particularly Groswater and Dorset Paleoeskimo and Historic 17-19th C. Inuit cultures, could survive here over the long-term. There is therefore a good chance that these climate/ice/seal cycles explain the southern Groswater expansion and at least the disappearance of Newfoundland Dorset. Absence of large, dependable harp populations in the Gulf and around Newfoundland may also offer a possible explanation for the dominance or resurgence of Indian cultures on the Central Labrador coast during warm climatic periods.

New Findings

New research techniques and more local studies are beginning to allow us to investigate these issues. The

development of more paleoenvironmental records from Newfoundland noted above have contributed to understanding human-environmental interactions in the island's prehistory (Bell and Renouf 2008; Renouf and Bell 2009). New studies from the Gulf that document changes in the annual monthly duration of sea ice cover in the Gulf, on the Labrador coast, and around Newfoundland will provide the key data for substantiating the hypothesis presented here. Recent studies of coralline algae, a slow-growing coral-like species that formed encrustations on underwater rocks, has provided information on marine climate along the Labrador and Newfoundland coasts (Halfar et al. 2014) that begins to corroborate other proxies with data specifically keyed to seasonal sea ice duration and overall reductions in southern extent of pack ice. If physical conditions can be correlated with modern population numbers we may have a solid foundation for understanding southern Eskimo territorial expansions and retreats. Another line of inquiry presently being followed is reconstruction of local paleo-marine temperatures from isotopic studies of harp and other marine mammal bones from dated archaeological deposits. These tests are currently being conducted under the ASC's 'Arctic Crashes' project using fauna from our Labrador and Lower North Shore (Quebec) collections.

2014 BAFFIN/LABRADOR CRUISE OF THE M/V CAPE RACE

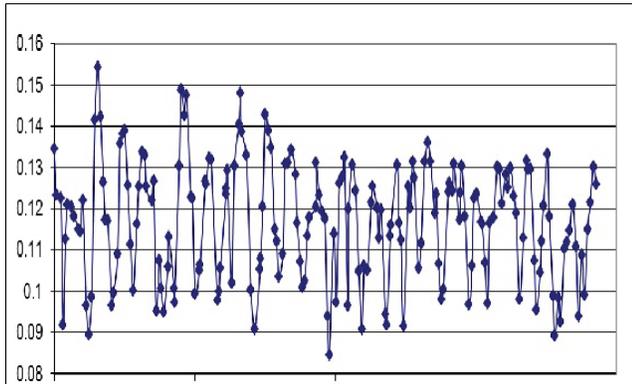
By: Walter Adey

Natural population crashes of Arctic organisms, some related to native peoples, others likely directly or indirectly climate-related, have been documented for many groups of animals. With the on-going concerns for the effects of human industrial activity in the Arctic, as well as the looming, potentially crushing burden of rapid Arctic warming, it is essential that scientists understand climate change as it related to past documented population changes, including human populations. Also, there is little question that industrial pollution in temperate latitudes has affected the Arctic in the past, and is likely to greatly increase with in-situ activity. To fully understand these past patterns and be equipped to deal with newly arising concerns, a climate/pollution time tape is necessary for Arctic waters. Rhodochro-



Typical coralline bottom in northern Baffin Island.

nology can potentially provide that time tape, in great detail. However, it is necessary that we extend the age and quality of our collections, and the analysis of those collections, back in time. This is required so that we better understand the ecology of coralline communities in the Arctic, and that we have a fuller understanding of the highly complex skeleton and metabolism of the Arctic coralline algae that will provide time tape.



Mg yearly cycling in skeleton of *C. compactum* from Baffin Is. x-axis in mm.

Coralline archives have allowed us to produce for the first time a detailed marine climate history for the Labrador-Newfoundland shelf that can be related to the history of its prehistoric cultures and modern residents (Halfar et al. 2013). These archives are especially significant in interpreting the periodic southern expansion of Dorset Paleoeskimo and Labrador Inuit cultures whose economy was based primarily on Arctic and Subarctic marine mammals (esp. harp seal and walrus). Coralline proxies indicating southward expansion and longer seasonal persistence of pack ice coverage correspond closely with the appearance in southern Labrador and the Gulf of St. Lawrence of Labrador Inuit culture ca. AD 1400-1600. Extending the marine archive, currently at 1200 years BP, to ca. 2500 years BP would provide a proxy for inferring range shifts and population crashes of harp seal and the large Dorset



Preparing for a coralline sampling dive from the R/V *Alca i.* in Labrador.

populations that that 'mysteriously' disappeared from southern waters.

Background



Passage of M/V *Cape Race* and dive/collections sites.

The rocky, photic benthos of Arctic and Subarctic Biogeographic Regions has a characteristic seaweed flora that includes an extensive high-magnesium calcium carbonate basal layer of crustose coralline red algae (Figure 1). Species of the genus *Clathromorphum* are important elements of this crust, and beginning in 1965 it was demonstrated by Walter Adey and colleagues that the Mg component of the high magnesium carbonate skeleton varied seasonally, and could be used as a reliable proxy for yearly thickness and growth rates, in effect a marine, Arctic rhodochronology (Figure 2). By 2005, specimens collected from the Gulf of Maine to Newfoundland had produced maximum ages up to about 200 years BP. Using the R/V *Alca i.*, a 20m floating laboratory, Adey, Halfar and students have been able to rapidly expand more detailed field work to higher latitudes in the Labrador Sea, and by 2012 had greatly expanded climate analysis using SEM, electron microprobe and laser scanning techniques to develop a high resolution climate archive to 1200 years BP.



Walter Adey and team holding coralline samples.

The 2014 cruise extended our collections and data northwards and contributed to the pool of knowledge that will lead to detailed environmental/ climate archives.

ARCTIC CRASHES PROJECT OFFERS WINDOW TO NMNH MAMMAL COLLECTIONS FROM THE NORTH

By: *Alaina Harmon*

As of May 2014, the Arctic Studies Center began a survey of National Museum of Natural History osteological specimens representing five key Arctic species: bowhead whale, *Balaena mysticetus*; harbor seal, *Phoca vitulina*; harp seal, *Pagophilus groenlandicus*; walrus, *Odobenus rosmarus*, and caribou, *Rangifer tarandus*.

This survey was conducted under the umbrella of the ASC 'Arctic Crashes' project, which seeks to explore relationships between human populations, wildlife species, and environmental change in the Arctic.

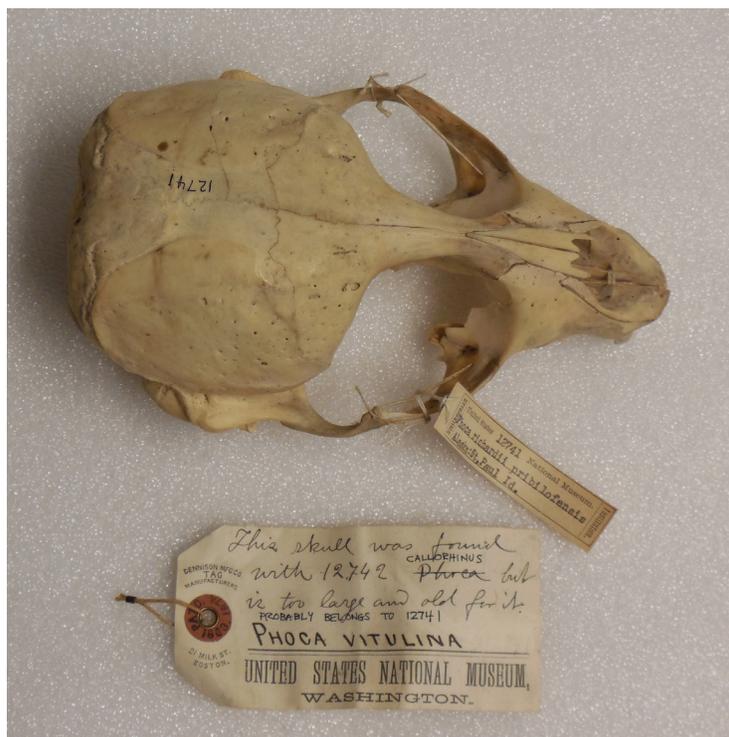
The final NMNH collection database, complete with the five identified key species and two northern right whale species, will contain approximately 1,100 specimens. Roughly 100 of these specimens represent Paleobiology collections, almost entirely walrus and caribou, while the remainder represents Mammal collections. The final product will include locality data, collection data, nomenclature, accession data, weight, length, sex, stage, geological age (Paleobiological specimens only), associated culture, stock designation, georeferencing data, collector biographical data, and associated documents for each specimen.

In addition, attached copies of select papers and reports provide immediate access to literature utilized in making stock assignments. Cultural assignment includes images of ledger pages, artifacts, data cards, field book pages, and more pulled from the SI Collections Search Center which represent a match between the assigned culture and any of the database species. Examples include a carved whale, a fiddle with bowhead whale baleen utilized in the bow, a page of Aleut names for

whales taken from one of William Dall's field books, and more. These images are meant to suggest the rich potential for institution-wide cultural, scientific, historical, and art historical Arctic species studies.

The database promises to provide information for interdisciplinary research.

Beginning in May 2014, I also collaborated with **Dr. Aron Crowell** concerning harbor seal skulls in NMNH collections from Yakutat Bay, Alaska. It was instigated by a conversation concerning the potential for sampling genetic material from Alaskan harbor seals during Aron's ongoing fieldwork in the Yakutat Bay area (*see this issue*).



Phoca vitulina (harbor seal), USNM Cat. No: 12741. This is a good example of the different types of data stored with the specimen itself--labeling on the bone itself and multiple types of paper labels. This one was collected by H. W. Elliott at St. Paul Island, the Pribilof Islands, Alaska. Photo: A. Harmon.

This conversation, as well as initial *P. vitulina* survey findings, inspired Aron to seek out the opportunity to work within an existing marine mammal collection permit in partnership with the Burke Museum in Seattle, Washington, to collect fresh *P. vitulina* heads from the Yakutat Bay area for genetic sampling. Initial osteological surveys also revealed the presence of three Yakutat Bay *P. vitulina* specimens from the Harriman Alaska Expedition in 1899, a time which had previously been unrepresented by *P. vitulina* remains at Crowell's field site. When asked by Crowell to examine these skulls for presence of bullet damage, I sought the expertise

of NMNH forensic anthropologist, **Kari Bruwelheide**, for her knowledge of key projectile osteological damage indicators, including radiating fractures and beveling surrounding entry and exit wounds. No bullet wounds were found on the 1899 Yakutat Bay specimens, although X-radiography can conclusively confirm or deny bullet damage.

Since that time, I also provided Crowell with photographs of the Harriman Alaska Expedition specimens, and conversed with zooarchaeologist **Dr. Mike Etnier**, working in partnership with Crowell, and NMNH collections manager **Charley Potter**. They provided information on previous examples and results of harbor seal genetic sampling in the NMNH collections and

direction on destructive sampling application protocol.

Another area of potential interest is noted Smithsonian archaeologist, **Henry Bascom Collins** (1899–1987), who contributed significantly to USNM Mammal collections. A simple search of specimen data, reveals 473 specimens collected by Collins. Of these, 12 bowhead specimens, 12 walrus, and one harbor seal were collected at St. Lawrence Island, Alaska, variously listed as being from Miyowagh, and Kialegak sites at the northwestern and southeastern tips of the island, respectively.

Accessing Collins' field books and papers in the Smithsonian National Anthropological Archives may provide insight into the context of these specimens. How many of these specimens were found in archaeological context? If it is possible to correlate a specimen to an archaeological record, what can be learned from its context? By virtue of their site location and stratigraphy, can these specimens be related to the 'layered' ethnographic landscapes that **Igor Krupnik** describes in his chapter on Gambell in the *Northern Ethnographic Landscapes* volume (2004)? If so, these specimens become indicators not only of morphology and species distribution, but of cultural practices ranging from hunting and prey disposal to architectural design.

Case studies such as this, if successful, make an argument for exploring early biological specimen collections for archaeological materials. These particular specimens would occupy their own liminal institutional status, being both embodiments of potential biological knowledge and records of human cultural activity, granting them a unique status as data and object of narrative. Theoretically, all museum specimens hold



Phoca vitulina (harbor seal) cranial storage. Photo: A. Harmon.



The cranium of a bowhead whale (*Balaena mysticetus*) from "Point Barrow, 5 miles off Iglurak Island." Collected by J. A. Ford in 1931. James A. Ford was assistant to Henry B. Collins in Alaska, 1931-1932. (Note: Iglurak is apparently Cooper Island, according to a 1919 USGS publication *The Canning River Region Northern Alaska* by Ernest de K. Leffingwell.) Photo: A. Harmon.

this status, as a record of their institutional histories and structures, of preparation and material histories, and as a record of their use and meaning to researchers, the public, collection managers, and others who interact with them and with the information surrounding them. Data collection itself is in a sense a narrative act. However, archaeological context makes this narrative component more explicit, and provides an optimal intellectual gateway to the reminder that biological specimens are indeed cultural artifacts. Similarly, many cultural artifacts are, in part, biological specimens.

Departmental divisions provide ease of access and care, as individuals such as curators and collection managers develop specialties within these named fields of expertise. However, data integration provides the opportunity to view specimens which may be physically and curatorially divided across an institutional whole. Tools such as NMNH's EMU database provide an optimal search environment to permit the interested

public, researchers, and museum specialists the ability to develop new comparative studies. However, they frequently act instead as "gated communities," with each division having its own data organizational structure.

Collins' specimens invite us to ask questions not only of their context in Alaskan ecological and cultural histories, but also in our own cultural histories and present and the stories and studies we favor and obstruct through disciplinary divisions and data management. One way to begin to approach the nexus of cultural and biological data in a faunal object is through individual object history. Collection and preparation leave their traces on osteological specimens. Tantalizing hints of these actions appear in the departmental

ledgers, written at the time that specimens are assigned catalog numbers. For example, one skull is listed as having been “destroyed by action of pickle” (i.e. salt brine storage) while other skeletal components are listed as “pick up,” which appears to indicate found remains. What chemical process was applied to and destroyed the skull in question? What taphonomic indicators are visible on the “pick up” specimens? Is there indication of scavenging or decomposition of bone which may suggest the specimen’s environment following time of death?

In the past, collectors have employed a variety of methods of removing flesh from a specimen’s skeleton in the field. These include burial of the specimen and trailing behind a ship to permit waterlife to clean the remains. Each of these activities will leave a record in bone. This offers great potential for comparing collection and preparation histories to skulls in the NMNH collections. Taphonomic indicators may provide a view into which specimens were likely to have been collected or prepared by individuals of particular professions or groups, as well as into factors such as soil or water chemistry in the area of death, potentially leading to further confirmation of or doubt regarding specimen locality. The NMNH Arctic mammalian skulls provide a wide range of natural (taphonomic) and additive (preparation) factors which may be considered in a non-destructive survey relating taphonomic studies to museum collection, preparation, and environmental history, highlighting the human history and construction of natural history objects.

A multitude of opportunities exist to intellectually expand upon this project. Examples include increased digitization of collections data such as a bone by bone inventory and specimen tag photography, as well as correlation with Arctic mammal artifacts, depictions in fine and decorative arts, and related craft and industry artifacts, such as whaling implements, found throughout Smithsonian Institution collections and archives.

CARIBOU AND PEOPLE IN THE HIGH ARCTIC: TIGER BURCH’S ASC LEGACY

By: Igor Krupnik



Ernest “Tiger” Burch in Nuuk, Greenland in August 2010. Photo: Igor Krupnik.



Dr. Max Friesen, in his lab at the University of Toronto, Canada.

On February 5, 2015, the ASC inaugurated its first “Ernest ‘Tiger’ Burch Memorial Lecture” with the presentation of **Dr. Max Friesen** from the University of Toronto (see below). We have been thinking about an annual lecture series for some time to promote research and the legacy of our late long-term Research Associate, Ernest S. Burch, Jr. (1938–2010 – see ASC Newsletter 21, 18–19). Among contemporary Arctic ethnologists, Burch was widely known for his many publications on human-caribou relations, including his pioneer paper, *The Caribou/Wild Reindeer as a Human Resource* (1972, with almost 220 citations) and his posthumous book, *Caribou Herds of Northwest Alaska, 1850–2000* (2012). Besides his own work on caribou and Arctic people, Burch was very supportive of other scholars—archaeologists, biologists, ethnohistorians—interested in this topic. Therefore, we decided to celebrate his legacy with an inaugural talk on the use of Caribou by the succession of early residents of the Canadian Arctic – from the Dorset and Thule people to the historical Inuinait (Copper Inuit).

‘Burch Memorial Lectures’ will become an annual event organized by the ASC and supported by funds from the Ernest Burch Endowment. The lectures will be mostly winter event, with a possibility of having thematic sessions or panels on specific Arctic topics of interest to the ASC and other NMNH/Smithsonian researchers.

We also view those lectures as honorary events (awards) to celebrate scholars who continue research in fields pioneered by Burch.

Our first Burch lecturer, Dr. Max Friesen, is an arctic archaeologist and professor at the Department of Anthropology, University of Toronto, Canada. He has broad interests in past linkages between environment, economy, and Inuit social organization. During 20-some northern field seasons, Dr. Friesen he has worked in the Mackenzie Delta and the Central Canadian Arctic, and he published many papers on early human

occupation and interactions with the terrestrial and marine species in the Arctic. He is senior editor of the forthcoming *Oxford Handbook of Arctic Archaeology*, and he authored a recent book, *When Worlds Collide: Hunter-Gatherer World-Systems in the 19th Century Canadian Arctic* (2013) that explores hunter-gatherers' relations with other world cultures pioneered in Burch's book, *Alliance and Conflict: The World System of the Inupiaq Eskimos* (2005). He also published a paper, *The Importance of Reading Ernest: Applying Burch's Study of Interregional Interaction to Inuvialuit Ethnohistory* (2012) that applied the network of 'historical nations' or 'regional societies' among pre-contact and early contact Mackenzie Delta Inuit (Inuvialuit) that was modelled upon a similar network proposed by Burch for pre-contact Northwest Alaskan Inupiat people. We plan to publish Friesen's lecture in a future ASC publication and to continue this practice with our future speakers.

THE ARCHAEOLOGY OF CARIBOU HUNTERS ON VICTORIA ISLAND, ARCTIC CANADA

By: Max Friesen,
University of Toronto

In his prolific writing since 1972, Ernest 'Tiger' Burch kept coming to the subject of caribou (*Rangifer tarandus*), which was a critical resource for virtually

all arctic societies not just for food, but also as a source of skins for clothing, tents, and boat covers, and antler and bone to make a variety of tools. Burch's final work, the posthumously published book *Caribou Herds of Northwest Alaska: 1850-2000* (2012) was an ambitious study which used historic written accounts and interviews with indigenous experts to reconstruct the ranges and migration routes of caribou herds in Alaska, before they were decimated in the late 19th century.

Burch's major caribou study is directly linked to one aspect of my research on Victoria Island in the central Canadian Arctic, with one major difference: I am trying to reconstruct caribou populations based on archaeology, rather than the written, historic record. Because the ancient peoples I study relied on caribou for a major part of their diet, it is important to understand whether the region's caribou were a reliable resource, or if they suffered from major population fluctuations, and potentially even drastic "crashes". If the caribou herds crashed, it could have had a devastating impact on local

societies.

Southern Victoria Island is home to the Inuinait ("Copper Inuit") who in the early 20th century and earlier relied on only a few major resources. Winters were spent living in snow houses on the sea ice, hunting seals at their breathing holes. The warm season was spent on land, with major resources limited to caribou and fish (arctic char), though secondary resources such as migratory waterfowl and muskoxen were also taken.

In this region, I have been a part of a long-term archaeological project developed cooperatively with the Kitikmeot Heritage Society of Cambridge Bay, Nunavut. Together, we spent ten years investigating a series of archaeological sites at the region called Iqaluktuuq ("place of many arctic char"), which is a short river valley that was an important arctic char fishing site, as well as a water crossing where caribou could be hunted

during their fall migration.

The archaeology has revealed that Iqaluktuuq was occupied for three millennia, by a succession of ancient peoples. The first people, known as Pre-Dorset, arrived around 1100 BC. During this early period, just one or two Pre-Dorset families camped in the area, leaving few remains except chipped stone

tools, animal bones, and several hearths (fireplaces). Almost a thousand years later, around 100 BC, Middle Dorset people moved into the area. Middle Dorset settled in greater numbers and lived a much more settled life, building pit houses insulated with sod for the winter and skin tents in summer, and leaving rich sites full of artifacts and animal bones. Their occupation lasted until about 700 AD. From 1000-1350 AD, Late Dorset people occupied particularly large, rich sites including an enormous aggregation site with four "longhouses", which are large communal structures. Finally, Inuit arrived around 1400 AD, beginning an unbroken occupation leading up to modern Inuinait communities. The earliest Inuit are known as "Thule", and built very large, comfortable pit houses.

In order to understand the nature of these ancient occupations, we need to reconstruct the availability of their main prey species. Most importantly, we need to know whether caribou were a reliable, constant resource, or if their numbers fluctuated, perhaps even occasionally



Iqaluktuuq, a short river valley connecting Ferguson Lake (foreground) with Wellington Bay on the Arctic Ocean (background). Photo: Max Friesen.

“crashing”. Around the circumpolar North, caribou herds are known to fluctuate widely, and some herds have been reduced in numbers to the point where they can no longer be hunted; or have gone extinct. The Dolphin and Union caribou herd on Victoria Island (named after Dolphin and Union Strait south of Victoria Island) is known to have suffered a major crash in the 1920s, linked at least in part to the introduction of the rifle, and only started to recover in the 1970s. We do know that this herd had a unique annual migration cycle. The herd spent the winter on the northern mainland tundra, crossed the sea ice onto Victoria Island during the northward spring migration, spent summers on the Island, and then migrated south again in the fall, again crossing over the sea ice.

Returning to the very rich archaeological record at Iqaluktuuq, the question is, can we use any of the region’s evidence to reconstruct the size of the Dolphin and Union caribou herd in the past; and, more importantly, did it ever crash to levels so low that ancient people were affected? A good place to start is by looking for evidence of active hunting of caribou. Here, the region delivers in spades. In 2010, we mapped one of the largest caribou drive systems ever surveyed. It consists of over 1500 inuksuks (stone cairns used to direct caribou movements), leading toward shooting pits. Since some parts of the drive system are very old, based on the amount of lichen growing on the rocks, we are sure that caribou have been actively hunted at these drives at least as far back as the Middle Dorset period.

An even more obvious place to look for evidence of caribou is in the samples of animal bones from the various occupations over the past 3,000 years. Here, the answer initially seems very simple. Every site has yielded caribou bones, often in huge numbers; and in most sites they are the most common species found.

However, it is actually quite difficult to use animal bone samples to understand caribou population fluctuations in the past. The reason is that most archaeological sites were occupied for many decades, and often centuries. Thus, the animal bone samples had accumulated over a broad span of time, so that a population crash might be invisible to the archaeologist.

However, there is one remarkable context that allows a finer-resolution look at chronological change in caribou

numbers. This was in a house occupied by Thule Inuit (the direct ancestors of modern Inuit in the region). Thule people occupied their houses for lengthy periods, and when a house floor became too dirty or uneven, they would often carefully construct a new floor on top of the old one. It is not uncommon for two, three, or even four floors to be found in Thule houses. In the house at Iqaluktuuq, however, there was an amazing occurrence: its entrance tunnel had ten separate floors, one on top of the other. Radiocarbon dating indicated that the house as a whole was occupied for about 300 years, so this means that, on average, a new floor was laid every 30 years. This gives an opportunity to look at caribou numbers over shorter increments of time. When

we analyzed the nine bone samples from between the ten floors, caribou were by far the most common mammal species in each one, never less than 80% of the mammal bone sample. Thus, again, the bone samples seem to indicate that local people had regular access to large numbers of caribou.

There is no doubt that the Dolphin and Union herd went through cycles of increasing and decreasing numbers in the past. However, it currently appears that even when caribou were at their lowest numbers, they were probably still numerous enough to support local peoples, at least at a minimum level. We plan future



A 34-meter long Late Dorset longhouse at Iqaluktuuq. Photo: Max Friesen.



Mapping one of the shooting pits at the Iqaluktuuq caribou drive. Photo: Max Friesen.

research in several areas to augment these findings, and in particular will look at the ancient DNA in caribou teeth to see if we can recognize any past population bottlenecks or crashes, when the herd was reduced to a small number. The results will be important for understanding the ancient cultures in the area that relied on caribou, and may also be useful to modern caribou biologists who seek to understand long-term population dynamics in herds that are at risk today from global warming.



The Thule house at Iqaluktuuq, nearing the end of excavation. At center of photo is the paved main floor of the house; to the right of the excavator is the short, deep entrance tunnel which contained ten separate floors. Photo: Max Friesen.

PRESERVING MONGOLIA'S HERITAGE

By: Paula DePriest and William Fitzhugh

In view of the rapid pace of modernization, the American Center for Mongolian Studies (ACMS) has worked for several years to enhance the documentation and preservation of Mongolia's tangible and intangible cultural heritage. In December 2012 the Smithsonian participated in a cultural heritage conference in Ulaanbaatar sponsored by the Mongolian Ministry of Culture, Sport, and Tourism and was invited to assist in developing plans for cultural heritage preservation. This led to a May 2014 workshop organized by the ACMS to explore heritage issues with cultural officials and representatives from museums and cultural organizations throughout Mongolia. This meeting led to a second workshop, also organized by ACMS, held at the Ulaanbaatar Municipal Library on 16 September, 2014, titled "Cultural Heritage and Mongolian Capacity-Building". This meeting was organized to acquaint museum and heritage organizations with a Smithsonian data repository system called SIdora that is being used to enhance archaeological research and data management.

The rapid growth of archaeological research and cultural resource management (CRM) activities in Mongolia, combined with the large and diverse group of institutions and organizations involved in these activities, has demonstrated need for more centralized reporting, management, and security of archaeological finds, data, and information. Recognition of the impending 'data crisis' brought together a group of sponsors including the Mongolia National Museum (MNM), the Mongolia Cultural Heritage Center (CHC), and the Smithsonian Institution. As in the May workshop, the September meeting was held under the general auspices of the Mongolian Ministry of Culture, Sport, and Tourism.

The September meeting was opened with supporting statements from MNM's Director, **D. Sukhbaatar**, and the CHC's Director, **Galbadrakh Enkhbat**. The latter reviewed his organization's mandate as the central repository for cultural and archaeological data from Mongolia. An overview of the data crisis was presented by the Smithsonian's **William Fitzhugh**, who noted the yearly crescendo of archaeological projects and the fact that many

foreign projects do not currently return archaeological data to Mongolia except in the form of collection agreements and technical reports from which data can be extracted only with great difficulty and expense. **Paula DePriest** discussed how capturing data is critical for the protection of movable and immovable cultural heritage from theft, looting, and trafficking. **Thornton Staples** presented information about SIdora, a system under development at the Smithsonian that can be used to manage the digital output of all kinds of research projects, and how it might offer a practical solution to Mongolia's data crisis. Staples made a special effort to distinguish SIdora, which can be used as a comprehensive system of recording, retrieving, and analyzing archaeological data in its interrelated contexts, with the many existing programs (e.g. "TDar") whose purpose is to archive archaeological information (i.e. data-bank) but are not designed to assist archaeological researchers from the time they gather field data to the completion of a finished report. An afternoon session was devoted to broad discussion of the problems and potential solutions.

Mongolian participants recognized the need for a centralized data repository system and the value of the SIdora program in particular. They recognized this workshop as timely, noting that new data structures are currently being implemented by the CHC. On the other hand, it was clear that the CHC mandate is complicated because the MNM, Mongolian National University (MNU), and Institute of Archaeology (AI) belong to different Ministries, and because MNM, MNU, and AI, while holding extensive archaeological collections and records, currently do not have the manpower resources to extract and code archaeological data that is needed by CHC. Despite these organizational problems, participants recognized that funders (foundations, banks, corporations) of archaeological work are increasingly demanding data preservation plans before making

grants and contracts for research or field mitigation of archaeological sites and materials. Currently, the Institute of Archaeology (Ministry of Science), which holds the most comprehensive GIS-based archaeological data system in Mongolia, is not able to offer more assistance to CHC than by submitting printed copies of their archaeological reports. While this serves as a library of sorts, CHC does not have the capability to extract data from these reports for use in their database.

In addition to providing the Mongolian cultural heritage community with a single, secure, and researchable archaeological management system, establishment of a central repository would stimulate sharing of data among researchers, institutions, and the Ministries. It would improve the research climate by facilitating synthesis of cultural and geographical information in land-based fields like archaeology and paleontology and would replace the current archaic, error-ridden paper system of documentation with a secure, modern digital system accessible to all according to prescribed security codes. Institutions would be credited for their contributions, and individuals could receive compensation as a type of publication. The system might be implemented by a pilot project documenting Mongolia's 3000 year old Bronze Age deer stones, a highly-visible class of objects widely recognized as one of the nation's most visible archaeological treasures. Currently a plan is being developed to use the Smithsonian's deer stone archives as a pilot project for input into the SIdora data system linked to the Mongolia CHC database.

The workshop produced a number of suggestions to address the data crisis. **(1)** Require Mongolian and international partners to agree on the principles for a secure, shared-access data system. **(2)** Establish a National Standing Committee for Archaeological Data Preservation and Management that would be required to help supervise and guide the process; such a committee would complement the existing Archaeological Permit Committee. **(3)** Review the various Ministries' support and oversight of data preservation and management, especially as the effectiveness of current CHC systems are compromised by the lack of resources available to its archaeological 'data suppliers'. (The cultural,

science, and educational ministries need to collaborate to provide improved infrastructure and up-grade staff and the hardware to support the program. The 'feeder institutions' (MNM, MNU and others) would need system operators and information specialists or archivists. Once the program was established, CHC would need service specialists to assist researchers in using the system and a pool of funds yearly for archiving data.) **(4)** Host an ongoing series of workshops to keep the data user group energized, provide continuity and technical training, and to develop capacity. Such a function could be assisted by establishing a professional cultural heritage preservation association. Perhaps the most important outcome of the workshop was the enthusiasm shown by participants from many different institutions and agencies, all of whom expressed interest in sharing data with a centralized CHC system, provided that resources are made available to do so and data security is assured.

During the coming year, the ACMS plans to work with Mongolian cultural organizations to develop a practical strategy for advancing heritage programs, particularly in the area of archaeological monuments, sites, and collections. We expect to begin by using SIdora research

system to assemble a comprehensive inventory and GIS database of archaeological materials related to the past decade of research on Darkhad religious structures (ovoos), Hovsgol aimag deer stones and khirigsuur burial sites, Mongolian sites of empire periods, Altaian rock art, and radiocarbon dates. These data would be interfaced with the CHC database and made available as part of an open access system to be shared with qualified museums and research institutions.

A FEATHER PILLOW IN A VIKING GRAVE?

By: *Carla Dove and Stephen Wickler*

In late November 2014, **Carla Dove** (USNM Feather Identification Lab) received an interesting inquiry from a far-away place. Dr. **Stephen Wickler** of Tromsø University Museum in northern Norway contacted Carla for assistance with an interesting object from the Vesterålen islands. The object turned out to be a pillow from a Viking Age boat grave. This pillow was found with the grave in a bog and was covered with a wool textile that was 'stuffed' full of feathers and down.



W. Fitzhugh, R. Beaubien, P. DePriest, and J. Bayarsaikhan at December 2012 cultural heritage conference in Ulaanbaatar.

As soon as the package arrived in Carla's lab, she began making microslides of the fluffy (downy) material from the pillow to determine if any of the tiny microscopic feather characters were still present in the 10th century item. The microscopic feather characters of groups of birds can be diagnostic if the proper material is available in the sample, so Carla set out to examine the pillow samples using light microscopy. Although the feathers were extremely brittle, Carla was able to find many fragments of feathers suitable for examination. Her work on feather structure has been applied to other anthropological studies, so she was well aware of the delicate nature of this ancient artifact.



Dr. Stephen Wickler holding the 'stuffing' of the Viking pillow.

Carla and Stephen are still working on the project, but so far most of the downy material appears to belong to 'seagulls'! The gulls (family: Laridae) have unique microscopic structures that set them apart from other groups of birds. The downy feathers of gulls have expanded and pigmented nodes that are located on the proximal portion of the barbules; the distal ends of the barbules are very fine and string-like (see photo).



Carla Dove examines the microscopic structures of feathers from a Viking pillow.

While the presence of gull species in the pillow makes sense due to the abundance of these birds in the region, Carla was expecting to find mostly duck or goose stuff-

ing. Thirteenth-century Norse sagas report the collecting of eider duck and goose down as a profitable trade item from Greenland and other North Atlantic regions. Norse "cultivated" down for clothing and duvets by constructing small bird-sized boxes with upright rock slabs. Eiders preferred these cozy shelters to wind-blown boulders and lined them with fluffy down plucked from their breasts. Reportedly, one could make several 'harvests' from each nest during the laying season. Other Greenland Norse trade items included narwhal tusks, walrus ivory, and peregrine falcons. Carla and Stephen continue to work on the pillow samples to determine if other species were also used, maybe even eider down.



Photomicrograph of a sample from the Viking pillow showing the expanded pigmented nodes typical of gulls (family: Laridae).

FILMING LIVELIHOODS IN GREENLAND

By: Hunter Snyder

For decades, film and media technology have been used to engage indigenous peoples and/or source communities in anthropological concerns while also proposing to provide media literacy and a salient voice to the outside world. Prominent examples range from **Worth and Adair's** project with Navajo in the 1960's, **Terry Turner's** efforts to introduce video cameras to Kayapo amid unrest over resource claims to Arctic-focused projects (Elder, 1995) and more subtle and explicitly interdependent arrangements between respondents and anthropologists found in the work of **John L. Jackson Jr.'s** *Ethnographic Filmflam*. Despite a rich history of storytelling and the production of videos throughout the Arctic (Elder, 1995), Greenland has not had a similar project involving video production education and ethnographic video production with an anthropologist. Like the Kayapo, Greenland also has natural resource concerns which no doubt grasp the attention of both scholars and local peoples. And while Inuit engage in a wide variety of film and video production from home-movie to the international cinema marketplace, anthropologists seem to have skipped over Greenland when it comes to teaching film and video production as a means of understanding Inuit lived experiences, especially those related to livelihoods such as hunting and fishing.

With support from an EAGER Grant from the National Science Foundation, Arctic Social Sciences Program, I traveled to Nuuk, Greenland for three months to determine why or how indigenous video production with the

aid of education may be possible and of value to source communities and my larger research concerns related to indigenous livelihoods. Within the first few days, it became clear that an agenda of teaching video production would be irrelevant. The experienced fishermen and hunters I spent my days working with were already media-savvy. They regularly sent photos and videos amongst each other and to family and friends. Depictions ranged from boat parts, caribou and muskox shot during the summer season, whale hunts, images of their children and family, political memes and visual words of wisdom. These men (and they are all men) did not need any training to tell visual stories or in order to provide moving images of their livelihoods.

What exactly is meant by the original goal of indigenous video production? There is seemingly impossible goal—and I reduce it here crudely—that if an anthropologist gives an indigenous person a camera, he/she can determine whether the kinds of film they chose to make would reveal something about the ways in which they perceive the world (Pack 2000: 273). That an

anthropologist can introduce media technology and indigenous peoples can produce unmediated moving images of their world is misguided and actually runs counter to the entire history of indigenous media production, at least as it has been conceptualized by the social sciences. Since the project among Navajo began with a scholarly agenda and did not commence with a fortuitous air-drop of 16mm cameras, the images that resulted cannot be understood as merely indigenous images. But to that very point, the history of indigenous film production that has followed has inevitably begun with the same condition; the technology of the camera

and the media that results becomes a ‘new’ contact zone (Clifford, 1997) between anthropologists and indigenous peoples. When we say images that introduce cameras and have contact with ethnographers are in some ways not able to be called indigenous video productions, we perpetuate the assumption that the world’s indigenous peoples are actually distanced from other forms of cultural production and technology, and furthermore, when we mediate the process of indigenous image-making, we act against the methods set forth by our visually-oriented forefathers. Nothing could be further from the truth.

But there is another twist. Despite recognizing that my contact with indigenous peoples would be complicit in the tradition of indigenous video production, I would ultimately not be able to contribute a continuous Greenlandic chapter to it. In Nuuk, the fishermen and hunters I met neither wanted nor needed the training and were already engaged in their own ways of producing and sharing moving images about their livelihoods. Even if my presence could be interpreted as a hindrance by both the discipline and the local

community, it was not, because how the fishermen and hunters decided to involve me in their work began by showing and sharing their images with me, and by inviting me to fish and hunt with them and for us to film each other, together. Before leaving for Greenland, **Alan Macfarlane** imparted upon me some wisdom: ‘before you even get to take out your camera, they’ll be taking photos of you.’ Within an hour of beginning fieldwork, the fisherman I was sailing with was taking a photo of me to later share with his family and other fishermen.



Inuit fisherman from Uummanaq signals a thumbs up in response to diminishing weather conditions and boat speed. Photo: Hunter Snyder.



Inuit fisherman from Uummanaq shares knowledge with a fisherman from Sisimiut about rich fishing areas and the places where his and other families have historically long-lined for West Greenland Halibut and gill-netted for Arctic Char. Photo: Hunter Snyder.

Considering the irrelevance of a formal video production education, the fishermen and I instead sailed deep into the Nuuk Fjord where we instead filmed each other fishing with the help of a small waterproof point of view camera. In some cases, I wore the small POV camera on my chest and worked as a deckhand detangling lines, gutting fish and steering the dinghy while the fishermen cast their longlines. Because open boats are both extremely small and exposed, staying warm is a trying activity. On an exceptionally cold day, the fisherman I was working with agreed to take the camera with him and wear it on his chest while I stayed in the workshop with the other fishermen. When he returned, together with a friend who helped to translate Kalaallisut to English we watched the recorded video and talked about the experience of filming and being filmed without me. The fisherman found the camera to be an obstruction to his work when mounted to his chest and suggested instead it be mounted to his head. And although he did not say explicitly, ethical implications arose from him wearing the camera alone, as he later told me he would have liked to ask questions, but because I was not present he was only able to ask afterward. If only for the comfort and ethical considerations of the fishermen, being present is a concession that I found to also be of value for the experiences we recorded together of each other, especially since I was the one initiating the video recordings of their work.

While I traveled to Nuuk with initial interests in the methods and history of indigenous media, frequent contact with the fishermen and hunters of Greenland's capital has instead redirected my interests toward technology and livelihoods. Unlike notions of indigenous video production and education, the transformation of technology within Inuit livelihoods and daily life are visible and timely and emerge from the very interactions I have had with fishermen and their transformation of visual technology within the contexts of their work. In my current fieldwork in Greenland, I continue to focus on livelihoods and how they shape and are shaped by natural resources and technology, even though the inclusion of visual methods is not at the core of the research.

I would like to thank **Igor Krupnik**, **Bill Fitzhugh**, and **Laura Sharp** of the Arctic Studies Center for their logistical, intellectual and practical guidance and support of my first forays into Greenland. Since 2012, **Birger Poppel** at the University of Greenland has been an invaluable supporter of my work, without whom it



Inuit fisherman from Sisimiut and his son prepare gill net for the seasonal run of Arctic Char in Ameralik Fjord. Photo: Hunter Snyder.

would have not been possible to conduct fieldwork in Greenland. I would also like to thank the fishermen with whom I worked and **Per Kunuk Lyngø** for offering translation assistance and general advice. My supervisor, **Marcus Banks**, and the faculty of the Institute of Social and Cultural Anthropology at the University of Oxford, especially **Christopher Morton** and **Laura**

Peers, helped to guide me through the extant literature and offer practical advice for commencing fieldwork. I would also like to thank **John L. Jackson, Jr.** for encouraging and inspiring me to explore ethnography and visual methods on levels deep, thick and thin.

THE POLAR UKULELE

By: Larry Bartram, Dick Boak, and Keats Webb

Since 1833, instruments by the renowned American maker C. F. Martin & Co., of Nazareth, Pennsylvania, have profoundly influenced the evolution of American music. Although best known today for their guitars, Martin produced other fretted instruments during their long history—notably mandolins and ukuleles—to satisfy the musical tastes of changing times.

Recently, archaeologist and software publisher **Larry Bartram** was exploring Martin's museum after leaving his guitar for repair in the adjoining factory. He was astonished to see the signature of his glacial geology professor, **Laurence M. Gould**, on a well-played ukulele that was literally covered with inscriptions in one of the glass cases. Bartram remembered that his 81-year old teacher was both second-in-command on **Richard E. Byrd's** 1928-30 Antarctic expedition and the first geologist in Antarctica. Gould's signature ap-



The top of the Konter Ukulele. Photo: Keats Webb, MCI.

peared among those of notable Arctic and Antarctic explorers, politicians (e.g., **Calvin Coolidge**) and celebrities (e.g., **Charles Lindbergh**, **Thomas Edison**) of the day.

When Bartram returned to pick up his guitar, he brought along his copy of Gould's book, *Cold*. Bartram was introduced to Martin's archivist, **Dick Boak**, who unlocked the museum case and brought Bartram and the ukulele upstairs for a closer look. Over the next several hours Gould's Antarctic account helped the two men to identify the signatures of many also associated with Byrd's earlier 1926 Arctic expedition—among them Roald Amundsen—and a research project was born to flesh out an fascinating chapter in U.S. history and the history of polar exploration.

The Konter ukulele is named for its owner, **Richard Wesley Konter**, a Brooklyn native and a famous ukulele player/enthusiast. He arranged popular songs (e.g., "If You Knew Susie Like I Know Susie") for ukulele, worked with Tin Pan Alley composers and publishers, and popularized the instrument with concerts and radio appearances. Konter was also a veteran sailor. He shipped with Byrd north in 1926 and south in 1928.

Konter was also a character. Despite strict weight restrictions on board the expedition's plane, he conspired with pilot Floyd Bennett to stow the little Martin ukulele aboard on the 1926 polar flight. Konter began collecting signatures during the 1926 expedition on his ukulele and continued once back in New York City after the historic flight, when the expedition members were treated to ticker tape parades and ceremonies.

Who wouldn't want to sign that instrument?

However, time and strumming have not been kind to the inscriptions. Bartram contacted Smithsonian colleagues about a closer look at the ukulele using multi-



Richard Konter playing his Martin ukulele for R. E. Byrd's dog, Igloo, on board the SS Chantier, May 1926. Photographer Unknown.



Keats Webb imaging the Konter Ukulele at MCI, 16 June 2014. Photo: Larry Bartram.

spectral imaging. Smithsonian curators **Bill Fitzhugh**, **Adrienne Kaeppler**, and **Ken Slowik** agreed to coordinate with SI Museum Conservation Institute's **Paula DePriest** and **Janet Douglas**, who put **Keats Webb** in charge of imaging the instrument.

In June, 2014, a range of non-invasive multi-spectral images were created (including ultraviolet, infrared, and reflectance transformation imaging) and the images are now being studied. With Smithsonian and National Archives assistance, Bartram and Boak are continuing their research, and are working on a small book of stories, biographies, photos and documents about this well-traveled and captivating ukulele.

MASTERS AND APPRENTICES

*By: Leslie Hsu Oh
Originally published in Native Peoples Magazine, March/April 2015, here with a new ending.*

Artists and their students at the Alaska Native Heritage Center discuss their work and why mentoring matters. The center in Anchorage is both a community gathering place and cultural resource center.

James M. Williams Jr.: 'Carving Saved My Life'

On a quiet summer afternoon in the Alaska Native Heritage Center village site, the soothing rhythmic sound of wood giving away to metal echoes in the trees. Most of the artists are taking the day off from demonstrating their craft. But **Kyle Demientieff-Worl** (Tlingit), a 21-year-old summer intern, is inside a carving shed, his hands busy detailing a raven mask with a crooked knife.

Red cedar chips fall like feathers around his chair as rain begins to fall at the Eyak, Tlingit, Haida and Tsimshian village. Behind him beneath a tarp, sleeps a massive, unfinished carving by his mentor **James M.**

Williams Jr. (Tlingit).

Born in Fairbanks, Demientieff-Worl is Tlingit from Klukwan on his father's side and Deg Xinag Athabaskan from Holy Cross on his mother's. An anthropology major with a minor in Alaska Native Studies at the University of Alaska Anchorage, Demientieff-Worl returns every summer to work for center because of the opportunities to apprentice with master artists like Williams. Thanks to the Heritage Center, he also has apprenticed with **David Boxley, Beckie Etukeok, Sharon Kay, Paul Marks II, Mabel Pike, Karen Rifredi and Israel Shotridge.**

Demientieff-Worl's mentor, Williams, isn't in the shed today because he is taking a deserved break from creating a frog feast bowl, a project commissioned by the center that's extended into its third month. When his project is complete, for the first time in history the Eyak, Tlingit, Haida and Tsimshian tribes will be given the chance to name the bowl in their own languages. Williams is of the Yéil Naa (Raven Moiety), Kiks'adi Clan (Frog Clan) from the S'é Hít (Clay House). His mother was the Naa Tláa (clan mother) of the Kiks'adi Clan before she passed away. Originally from Klukwan Kaagwaantaan Clan, his dad grew up in Hoonah and was the first and only Tlingit man to ever become a Russian ordained Orthodox priest. Williams never had a formal apprenticeship experience, and says he does not share his craft with just anyone. "I shared with Kyle because he had an urge to know. That's something I really identified with."

At the age of seven, Williams began carving. "I'm 56 now. The first carving I did was when my dad gave me a small pocket knife because I was always taking kitchen knives and trying to carve things with them. He told me it was mine. So I sat and worked on a little canoe. I managed to carve benches in it. I didn't know what I was doing, but I wanted to do it anyway. I gave it to dad, and he said, 'Wow, he's going to be a carver someday.' It's amazing how those words can influence somebody."

"It was years before I picked up carving knives. It came to fruition when I was trying to get by alcohol and drug abuse. I picked up my carving tools because I wanted

to survive. The more I got into it, the more I wanted to know about my culture. My carving saved my life because it put me back in touch with my culture. The more I pursued it the more I found out I knew a lot about my culture."

I ask Demientieff-Worl if I could take a peek at the bowl, Williams' famous work in progress. He lifts the tarp and immediately I find the reason why Williams almost gave up on the project: a large crack splits the bowl from head to tail.

"I was sitting right by the log frustrated to the point of almost breaking down to tears," Williams later tells me. "I was just sitting there looking at it. All of a sudden, a memory of my mom popped into my head. She used to broadcast on CB radio all over the world. Places like Russia, Japan, England, Italy, Spain, France, Brazil, Chili, Mexico. People would ask, 'Hey Alaska lady what's your handle?'" She decided to call herself, 'Cracked Frog.' She became world-renowned as the 'Cracked Frog.'

"All of a sudden, it hit me. The bowl has become the embodiment of my mom's CB Radio handle. The bowl taught me a lot. A lot of people were coming and wanted to learn about the bowl and the frog. The other connection with the bowl was that my mother loved teaching about Tlingit custom and culture. This frog was a reflecting spirit of my mom's memory. And it was teaching people the way my mom was a teacher. These two reasons gave me driving energy to finish the bowl."

Running your fingers down the crack, you can feel the passion of Williams' artistic intention. "The frog is still trying to fulfill his duty to be keeper of the land. You see news reports all over the world about strange things going on with frogs like frogs being born deformed. There's also a startling decrease of frogs all over the world. This tells me that frog is fulfilling his duties and sending us a message that we need to take better care of the land."

Michael Livingston: Do Your Homework

While presenting to visitors at the Aleut and Alutiiq village site, **Michael Livingston**, whose traditional Aleut name is "iqyaḵ" meaning "sea kayak," chatted frankly about his 40-year-long career as a full-time



After working on the frog bowl for nine months, James M. Williams Jr. William realizes it "was a reflecting spirit of my mom's memory. And it was teaching people the way my mom was a teacher." Photo credit: Clark James Mishler.

artist. Raised in Cold Bay on the Alaska Peninsula, Livingston learned sea kayaking at age 7 in a kayak built by his father. Livingston apprenticed with masters such as **Anfeshia Shapsnikoff**, who taught him how to weave Aleut baskets in high school in Kodiak; **Sergie Sovoroff**, who taught him how to make model baidarkas (Aleut sea kayaks) when he was 21 in Unalaska; and **Bill Tcheripanoff**, who taught him about drums and traps.

“I had been wanting to learn about my cultural heritage and I saw the kayak was a good tool to learn about what the ancient life was,” Livingston says. “After Sergie’s class, where I was both student and instructor, I returned to Cold Bay and built a full-sized kayak there. I started to read all the literature I could find on Aleut kayaks and connect with world experts who are studying traditional kayaks.”

In 2000, the Alaska Native Heritage Center commissioned Livingston to craft an ulaxtax, a double-hatched kayak. Livingston found apprentices to help him build the frame and sewers to sew on sea lion hide. Then he launched it in Homer. Today, it hangs from the ceiling of the center’s Hall of Cultures.

Besides kayaks, Livingston diversifies his career by learning from other Aleut instructors, basket weaving, regalia, bentwood hats, and kayak paddles. He holds a B.S. in Education, M.S. in Counseling, and is pursuing a M.S. in Archeology and Ph.D in Education. His doctoral research compares the self-esteem of students who have taken his traditional face-to-face kayak building class vs. an online course he designed himself where he sends students a model kayak kit. “Which class do you think increased self-esteem more?” he asks me. “Face-to-face?” “That’s what I thought,” he said. “But my online class did better. I think it’s not just about teaching but increasing a sense of self-worth through the instruction of ancient Unangax ways. He tells apprentices to always aim for the highest degree of education. “Don’t let negative people get you down. Someone will always criticize your work. You should expect it. Their motivation is to make you stop learning ancient ways.

“Do your homework. Get out and build and teach. Learn how to kayak. Safety is critical. Networking is very important. You may be a starving artist for a

while, but starving and having patience and endurance is part of the ancient Unangax way. There are stories about ancient Unangax paddling their iqyăx for 12 solid hours through rough weather. They didn’t give up. They carried big weights over long distances over hills. Winter months were difficult. They were cold, starving. They had to eat the skins off their kayak. You got to have endurance and strength to pull through difficult times.” He recommended linguistic study and reading texts like **Father Ioann Veniaminov’s Journals** from Unalaska to understand historical events.



Hanging from the ceiling of the Hall of Cultures in the Alaska Native Heritage Center, this ulaxtax, a double-hatched kayak, was crafted by Michael Livingston out of sea lion hide. Photo credit: Leslie Hsu Oh.

Perhaps, the best illustration of doing your homework comes from Livingston’s crafting process. He not only visits museums but also goes on archaeological digs in the Pribilof Islands, the Aleutian Islands, and the Alaska Peninsula in order to examine artifacts made by his ancestors. “When you dig in the earth and you find an ivory carving or stone projectile point that might have been made by one of your ancestors, a magical event occurs.”

In 2001, he was on a dig on the Alaska Peninsula and his instructor found an ivory carving. “It might’ve been an earring. It was highly intricately carved. It’s hard to describe something that might’ve come from a different planet. The carver put a great deal of work into it. Started with a thick material, worked it to almost paper thin. The top was circular. Had shoulders on it. Slots up and down center. At the bottom, there were five toes that came down and had openings on it. When I saw this, I was strongly connected to it and wanted to study it more. That was my part of my motivation for travelling to Idaho to attend college because this artifact ended up in an

archaeology lab there.”

Livingston joined **Okalena Patricia Lekanoff-Gregory** from Unalaska in the Aleut/Unangax Traditional Bentwood Hats Alaska’s Living Cultural Treasures Artist Residency held at the Anchorage Museum. The residency not only allowed apprentices to learn from these two masters but both Livingston and Lekanoff-Gregory spoke about how much their craft benefited from close examination of artifacts at a museum.

“It’s like a puzzle scattered all over the world and we are trying to draw the pieces back together. This 19th century hat, there were a lot of things we couldn’t make sense of. How were they able to bend it so nicely? How

was the back of it so nicely formed? When you are with a group of bentwood hat carvers, one person will see something that you didn't see and you'll see something that they didn't see," Livingston says.

Livingston says one of his latest challenges has been trying to figure out how to develop a low budget kayak kit. He wants someone like a student living in an apartment to build a kayak and take it to a local lake and launch it. "Even if it's just one or two paddles, they can at least start to make that strong connection," he says.

Andrew Abyo: Make Your Own Name

In the art studios lining the edge of the Hall of Cultures, 17-year-old **Diamond Williams** (Tlingit) gasps as black paint from her brush bled across a faint pencil line she had drawn upon her yellow cedar bentwood hat.

This summer, Williams and **Sherise Nicholson** (Yup'ik), 17-year-old whose parents are from Dillingham, were the first lucky interns to be paid by the Alaska Native Heritage Center to apprentice with Livingston on kayaks, and other leading artists in the state on boots, mittens, dentalium shell necklaces, bent wood visors, Tlingit bowls and parkas.

Ed Bourgeois (Mowhawk), former Director of Public Programs and Community

Engagement at the Alaska Native Heritage Center, says Williams and Nicholson "showed the most artistic promise and were recommended by the Heritage Center's after-school program. They were taught in 2014 not only the artistic aspects but also the entrepreneurial part of it: how to market, sell, and price their art. Hopefully in the future we can offer the art internship to more than two students each summer."

Other programs offered by the Heritage Center include: the ArtPlace grant which will fund four to five master artists throughout the year to teach at the Heritage Center for about a week and train journeymen to continue to practice and teach in the community after the residency is over; entrepreneur training for artists on how to budget, how to deal with galleries, how to set up a booth; and the "Electric Ulu," a community-driven website and social media platform for Alaska Native artists.

Andrew Abyo (Sugpiaq/Unangax), whose father is

from Pilot Point and mom is from Chignik, says to Diamond, "Let me see your brush. See, what's happening is that your brush is caking up. Then you want to rinse it and when you get more paint, make sure it is thin enough. You want it to be so thin that it should slide off the tip of your brush onto the wood like oil."

Buoyant and always smiling, Abyo shows both interns how to erase mistakes in their design after the paint dries. The man seems to have a solution for everything, backed by a remarkable story, which starts here at the Alaska Native Heritage Center.

In spring 2005, when he was resting at home after a long day as a truck driver, his mom called and insisted that he attend a class that night at the center with his uncle **Peter Lind** on the atlatl, or throwing board. He had never carved in his life before this class. Soon, he took another class with Lind on bentwood hats. Then, he did something that some would consider crazy. "I

can literally remember the day I went from full-time employee with an hourly job to full-time artist. I quit my job, then went to Sears and bought \$500 worth of tools. It was pretty scary. I just went for it."

Today, Abyo pieces sell for \$1,000 to tens of thousands of dollars. Sometimes, he is so busy that his wife has to help him. For example, one corporation bought 20 bow and arrow sets from Abyo all at once. The

genius to his success, which he shares freely with his interns: "Make your artwork stand out from others. Be able to make your own name. I've been known to bring out different art pieces that you don't normally see except in a museum."

On the table where he works, he has several Smithsonian exhibit catalogues spread open to bentwood hats whose design he was tracing onto the visor in his hand. Like Livingston and Williams, he receives inspiration from his ancestors' artifacts and reverse engineers them when gets a chance to examine them more closely.

At first, the interns were too shy to say what they learned from their apprenticeship. Abyo teased Diamond by suggesting, "How to use a carving knife?" Both girls laughed. When Diamond worked with Williams, she accidentally gouged her hand with a carving knife. "My cut was 1 inch wide and a half-inch deep. They said I was really lucky that I didn't cut a tendon. I



Andrew Abyo shows Diamond Williams and Sherise Nicholson how to erase mistakes in their design after the paint dries. Photo credit: Leslie Hsu Oh.

had to get seven stitches,” she says.

Williams says he was impressed with Diamond for returning the next day to continue shaping the inside of her Tlingit bowl. Later, Diamond admitted that she “learned that it’s important to pass down tradition and learn not just about your own culture but also about other people’s culture in order to have a better understanding about the world.”

Nicholson says, “I learned that you should always listen to your Elders and never disrespect them, that it’s good to learn new crafts. The Alaska Native Heritage Center benefited me because they taught me salesman skills that I didn’t know.” The Heritage Center’s Arts Manager **Beckie Etukeok**, who is Inupiat, Pilipino, Tlingit and St. Lawrence Island Yupik and has been making drums for over 30 years, often tells apprentices, “Never think that the goal is to earn money, think only of the passion you grow and the money will come with it.” She gave up a lucrative career to work at the Heritage Center because she loves to nurture emerging artists. Abyo is one of her proudest examples of what she tries to accomplish.

“We all nurtured him and supported him and he was open to it. He was willing to ask questions. He would come by the Heritage Center and ask how to write a resume or a bio and all the managerial things artists have to do and that’s my forte. Grooming artists is what I do.”

An Absolute Privilege

In a tiny room deep within the Smithsonian’s Museum Support Center in Suitland, Maryland, a handful of Inuit Studies Conference attendees gather around **Chuna McIntyre**, a storyteller, artist, and musician born and raised in the village of Eek on Kuskokwim Bay. He holds a B.A. degree in Art Studio and Native American Studies from Sonoma State University.

With white gloves, he gingerly picks up a pair of dance fans collected by Edward W. Nelson in 1879. “It’s missing its plumes,” McIntyre explains to Smithsonian Arctic Studies Center Contract Conservator **Landis Smith**. “If you restore it, it will come back to life.”

He holds one in each hand and tells us to look at the twisted spirit face on each fan. Turning them slowly beneath the harsh ceiling light, he launches into a story about a shaman that woke in the middle of the night.

He walked out of his home and saw a soft glow in the snow. Walking over to the glowing area, he saw a pond and reflected upon it, the face of the moon twisting.

McIntyre answers a question that Smith asks him about how to display these fans in an exhibit. He looks at each fan. His face twists. Dramatically, as if he is on stage, he sweeps his eyes across the quiet crowd and repeats the sentiment of what he had said earlier about a squirrel parka collected in 1885: “You are looking at a masterpiece. I mean, this is akin to all the best pieces in any museum. It’s an absolute privilege even to be touching this piece, and to be able to handle it. The knowledge that we hold, that we gain. It’s an absolute privilege. The moment I looked at it, I said, oh my goodness, I’m still learning. I have so much to learn. I

am continually learning as I’m looking this piece. It’s teaching me, even right now. So it continually teaches me. That’s the way education is – it never stops. Just because you walk out of the classroom – it never stops. You look around – and you continually learn.”

Smith tells me later, “As a conservator, I am interested in what Chuna has to say about materials, technologies, and the meaning of these collections for him as a contemporary Yup’ik artist. This kind of work brings relevance to museum collections, connecting them to peoples’ lives and the continuity of cultural traditions.

“As conservators, we are responsible for the preservation of museum collections – we are concerned with the objects on both tangible and intangible

levels; the materials from which they are made, their use, and technologies – but also their meanings and what is valued in the objects. Working with elders, various community members and artists such as Chuna are amazing opportunities to learn, and to more fully document museum objects as well as to make better and more responsible decisions in the museum. While we carry out examinations, analysis, and background research as part of the conservation process, what is otherwise unavailable to us is the deep cultural knowledge and insight that elders and artists such as Chuna can bring and that is so central to the understanding of these collections.”

Anyone can make arrangements to examine The National Museum of Natural History’s Department of Anthropology artifact collections (representing over 2 million objects, including 144,375 ethnological cata-



“If you restore it, it will come back to life,” Chuna McIntyre says as he acts out a story about these dance fans collected by Edward W. Nelson. Photo credit: Leslie Hsu Oh.

log records, 292,791 archaeological catalog records, and over 1300 works of modern and contemporary arts) and the National Museum of the American Indian collections (which number 825,000 objects, 1500 linear feet of paper records, 324,000 photographs, and 12,000 items in the Media Archive). The Museum Support Center also houses the National Anthropological Archives which holds unpublished material from arctic researchers and archival photographs documenting traditional lifeways.

To visit the Smithsonian collections, browse the National Museum of the American Indian object collections and Archive Center at <http://nmai.si.edu/explore/collections/crc> and the Department of Anthropology's collections at http://anthropology.si.edu/cm/visitor_policy.htm and the National Anthropological Archives at https://www.mnh.si.edu/secure/anthroforms/archives_request.cfm. Scholarships are available.

Apologetically, McIntyre shrugs as if the dance fans have taken control and his body simply can't help swaying back and forth and he can do nothing but surrender to the inspiration and sing.

With eyes closed, McIntyre gives us a taste of the other hat he wears besides artist, Founder and Director of Numamta (of Our Land) Yup'ik Eskimo Singers and Dancers. He performs with this dance troop all over the world from Paris to Germany to New Zealand to Australia.

The Yupik lyrics work their magic, weaving a bond in the air between the audience, artist, artifact, and museum staff. I am grateful to the Smithsonian's National Museum of Natural History's Arctic Studies Center and Recovering Voices Program for giving me this behind-the-scenes look at a synergistic relationship between artifact, contemporary artist, and museum staff, each coming alive through the other. This is what Williams, Livingston, and Abyo tried to convey to their apprentices, that to become an artist crafting endangered art forms in the 21st century, ultimately, you have to be humble enough to always seek a master to learn from, even if that master is long gone and only what he or she labored upon and loved survives.

RHYTHMS OF THE TUNDRA: NEW RESEARCH ON ARCTIC DRUMS

By: *Christopher B. Wolff, State University of New York, Plattsburgh*

As a lifelong drummer I have always been interested in the use of percussion instruments by various cultures but only recently have been able to combine my love of drumming and archaeology in a research project investigating drum production and use by Arctic and Subarctic cultures. In 2013, I commissioned **Tim Rast** (Elfshot) to create a reproduction of a Late Dorset Paleoeskimo drum recovered from the Button Point Site (Pffm-1) on Bylot Island, Nunavut. Rast had already been experimenting with recreating the Button Point drums and had begun research into their construction and distinct features (Rast 2014). His research raised many new questions about the production and use of drums by the Dorset, and how they may relate to other drum traditions throughout the North American Arctic

and their historical connections to cultures across the Bering Strait.

In the spring of 2014, Tim Rast, **Lori White**, and I travelled to the Canadian Museum of History (CMH) to research the Button Point drums, the only Dorset Paleoeskimo drums ever recovered. Found in close proximity to two near-complete masks, various mask fragments, and other drum pieces (Mary-

Rousselière 1976), they were likely associated with shamanic activity, as they are and have been in many cultures throughout the Arctic. Sets of incised lines on the drum rims that progress in frequency from the handle of the drum to the opposite side may be symbolic features associated with shamanism or even simple music notations. We are currently investigating several hypotheses concerning these marks.

Our early stage research indicates typological differences between Dorset and historic Inuit drums that we have documented among the CMH collections. Further research will focus on comparing the Dorset drums with other prehistoric and historic period examples from the Western Arctic and Siberia, curated in collections at the NMNH and other domestic and international institutions. Beyond the Button Point specimens, we are also preparing proposals to conduct ethnographic research among modern drum manufacturers and performers in the Arctic to understand variation in the



Wooden drum parts from the Dorset site at Button Point on Bylot Island, Nunavut. Photograph by C. Wolff of specimens at the Canadian Museum of History.

construction and use of drums, and to create a comparative framework for further investigation into archaeological and historic drum use. We hope to collaborate with communities throughout the Arctic to understand how drums are integrated into their society and how this might have changed as many Arctic groups have been transformed by non-native contact and missionization. This will include documentation of drums, their production, and performances. This research has the potential to shed light not only on Dorset ceremonial practices, but also on symbolic and ideological variation and similarities across the Arctic through time. Moreover, the ubiquity of drums among northern peoples makes them an excellent subject of comparative research to better understand cultural interaction, migration, origins, and relative impacts of colonization across the north.

LAGOMORPHS ON THE NORTH SLOPE?

By: Michelle Cason (University of Alaska/Fairbanks)

The following report by Michelle Cason (mmcason@alaska.edu), a graduate student at the Department of Biology and Wildlife at the University of Alaska/Fairbanks, is a brief account of her interest in some ethnological specimens—unworked pelts from hares, most likely intended as decorative fur trim for sewn clothing or skin bags—that had been acquired by Smithsonian naturalists at Pt. Barrow, Alaska, in 1883 during the International Polar Year expedition. These rather nondescript artifacts had been quietly languishing in one of the collection storage units at the Smithsonian’s Museum Support Center awaiting renewed interest. As such they testify to the potential significance that even the most mundane artifact might convey as a result of its preservation and provenience. Cason’s work is also a reminder of the value of the old artifacts and natural history specimens collected by Smithsonian naturalists over a century ago to contribute to contemporary research addressing animal population dynamics and ecology. --Stephen Loring

Background

The Alaskan Hare (*Lepus othus* Merriam 1900) is the largest lagomorph in North America (Feldhammer *et al.* 2003) but remains one of the most poorly studied terrestrial mammals on the continent. Its current distribution is restricted to western Alaska south of the Brooks Range (MacDonald and Cook 2009), but historical anecdotal accounts of occurrences north of the Brooks Range (the North Slope) have led to confusion over its past, present, and predicted

future distribution. To clarify the historical range of *L. othus*, we surveyed North American museum collections and geo-referenced voucher specimens. The rediscovery of a hitherto missing specimen located at the Canadian Museum of Nature is evidence for the occurrence of at least one Alaskan Hare on the North Slope of the Brooks Range as recently as the late 1800s. If *L. othus* occurred on the North Slope with regularity, this suggests a substantial range retraction to its present distribution.

Collaboration with the Arctic Studies Center

Specimens in the anthropology collection at the National Museum of Natural History indicate that mistaken field identifications may have contributed to the anecdotal reports of *L. othus* on the North Slope. The anthropology collection is home to several hare skins brought to the North Slope by inland Alaska Native traders. These skins represent some of the earliest Alaskan Hare reports from the North Slope, specifically the Point Barrow region. John Murdoch, a 19th century naturalist and key source in *L. othus* distribution literature, reported that Alaska Natives in Point Barrow were unfamiliar with *L. othus* but that the “Nunatangmeau” Eskimos brought hare skins there for trade (Murdoch 1885). He considered them evidence of “polar hares” occurring in northern Alaska, “somewhere in the Colville Region” (Murdoch 1885:103). The Colville is a river north of Brooks Range that drains into the Beaufort Sea. Murdoch’s expedition collected the hare skins (USNM E89915-0, USNM E89915-1), and the name “Nunatamium” is written on the skin tags. The Nunataagmiut Iñupiat did live in the Colville

Valley but were often confused with the Nuataagmiut Iñupiaq of the inland Noatak River or the Napaaqtugmiut Iñupiaq of the Noatak Basin (Burch 1998). All three of these groups traded with one another and with Point Barrow residents, but only the Iñupiaq groups lived close to what is now the northern extent of the Alaskan Hare’s distribution (Burch 1998).

In photographs of the hare skins provided by **Stephen Loring** the dark roots of the furs on USNM E89915-0 and USNM E89915-1 identify them as snowshoe hares, *L. americanus*, not Alaskan Hares. It is likely Murdoch and other authors of early reports may not have been able to differentiate between *L. othus* and *L. americanus*, or between traveling Alaska Native groups, which casts further doubt on the validity of the anecdotes of *L. othus* on the North Slope. Anthropological specimens with locality data, like these skins,



UAF graduate student Michelle Cason holds two specimens from a recent donation from the Alaska Department of Fish and Game, which is funding her graduate research.

represent a largely untapped source of information for research on the distributions of mammals with poorly documented historical ranges.



Small wooden carving of an "Arctic Hare" collected by Lucien Turner at St. Michael's, Alaska ca. 1877. SI-129244. Photograph by Stephen Loring.

For a more detailed account of Michelle's research see her forthcoming article, "Dynamic distributional limits of an arctic endemic, the Alaskan hare" in the Journal of Mammalogy.

CUNEIFORM ASTRONOMY UNDER ARCTIC SKIES

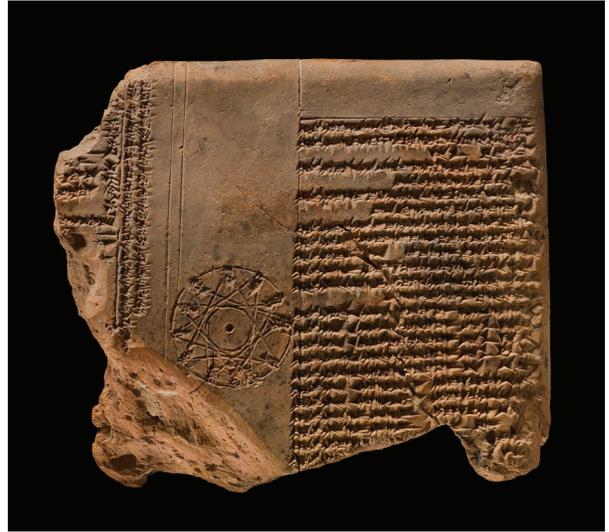
By: Wayne Horowitz

I am an Assyriologist working at the Hebrew University in Jerusalem, that is, one of the few hundred researchers in the world who study the written traditions of the cuneiform Ancient Near East. Despite our small number, we are faced with the largest collection of documents from any known civilization before the invention of the printing press. Our corpus numbers somewhere in the hundreds of thousands of published and unpublished tablets and inscribed objects, ranging in time from the late fourth millennium BC to ca. 100 AD, including finds from the cuneiform homeland of Mesopotamia (Ancient Iraq, Babylonia, Assyria, Sumer, and Akkad), as well as what is today Syria, Turkey, Iran, Lebanon, Israel, the Palestinian Territories, and Saudi Arabia. As our field is defined by the cuneiform writing system, rather than by subject, we Assyriologists work with a diverse set of genres, from everyday receipts and contracts, to long literary works, and scientific texts including the astronomical texts.

This tablet comes from own field of interest, the study of Ancient Mesopotamian astronomical texts, and it is this interest which in a roundabout way brought me to the Smithsonian Institution in September of 2014.

For some 30 years now I have been studying Ancient Near Eastern astronomy, that is to say Ancient Near Eastern astronomical texts written in cuneiform, but of course, I have never had an opportunity to "talk shop" with an Ancient Mesopotamian astronomer, to try to

understand firsthand how he or she experienced the sky. Thus, I have always wondered how much I read in my cuneiform texts is specific to Mesopotamian culture, and how much is common to us all, past and present, here or there, as human beings on Earth experiencing the sky in all its wonder and majesty. But how to test such a question?



Cuneiform text in Smithsonian collection.

This question bothered me for quite some time, until one day it occurred to me that I could try to test this question by means of comparative research. The problem with this is that modern western astronomy ultimately has its roots in Mesopotamian astronomy, by way of the Greeks. Thus, for the sake of comparison, I would need to look for an astronomical tradition far away in time and place from Ancient Mesopotamia, and it is this which lead me to my recent adventures in the north of North America, and finally to the John Wesley Powell Library of Anthropology of the Smithsonian Institution.

Many years ago, while still a teenager, my family took a camping trip up the Alaska Highway to the Yukon Territory of Canada and on to Alaska. Since then I have been interested in the Arctic, and it was natural that for me to decide to use the astronomical traditions of northern North America on a comparative basis with the Assyriological material that I know so well. In winter 2012, with a grant from The Halbert Center for Canadian Studies, I spent two weeks in Whitehorse in the Yukon Territory, and at the Aurora Research Institute in Inuvik in the Northwest Territories. There I had the great fortune to meet Alestine Andre of the Gwich'in Social and Cultural Institute (GSCI), the academic arm of the Gwich'in Tribal Council, the northernmost first nation in Canada. To make a long story short, the GSCI agreed to cooperate with me on what now became our joint project, to recover, as much as possible, the native astronomy of the Gwich'in nation.

This led to two more winter trips to the north; back to Inuvik and surrounding communities in 2013 to conduct a series of interviews with Gwich'in elders and community programs, and to the University of Alaska, Fairbanks, in 2014, where Prof. Gary Holton is supervising a similar project studying the astronomy of the Native peoples of Alaska including the Gwich'in. The purpose of my visit to the Smithsonian Institution was to review bibliography relating to Gwich'in astronomy, more specifically, to study a number of first-hand accounts of visitors to the north in the 18th, 19th, and early 20th centuries. These included the diaries of Sir Alexander Mackenzie, for whom the Mackenzie River is named, and diaries of Sir John Franklin's expedition of 1825-27.

My research remains in progress, pending more field work in the North, and more time in the libraries, so for now, let me take this opportunity to discuss briefly one piece of information regarding the Gwich'in view of the Moon, which fits nicely with the traditional Babylonian view of the same astronomical body. One of the most popular traditional narratives of the Gwich'in people is the story of the Boy in the Moon. Many versions of the story still circulate in both Alaska and Canada. I myself had honor to being told the story first hand, in both English and Gwich'in by an elder from the community of Fort McPherson. The basics of a short version of the story go something like this:

A long time ago, one winter there was little food and the people were going hungry. The men organized a caribou hunt and one little baby boy, a very special boy, asked to go along. Although still a baby, he could already talk, and when his father said he could come, his mother made for him a warm outfit out of the skin of just one single marten - he was just that small. When the men set their way on the trail the little boy told them where the caribou were to be found, and was promised that he would be given the chance to choose the best and fattest caribou to give to the poor people, widows, and orphans of his community. But when the hunt was over, his mean uncle who had brought down the best and fattest caribou, refused. The little boy cried and cried, and kept on crying all night and his uncle could not sleep. Enraged, his uncle cried out: "Send him to the Moon." When the people woke up the next morning the little boy was gone. They looked and looked but could not find him. That night he appeared, in the face of the Moon. His parents cried and cried, and when they woke up the next morning he was back with them. He

told them, "You will live only for a little while, but I will live forever. When you see me hunched over with a full pack, this means that there will be a winter of plenty, and there will be much to eat. But if I am standing straight, this means my pack is empty, and that there will be hunger among the people." That night the boy disappeared, together with his little puppy dog, and the next morning only his little marten suit was to be found, hanging from the smoke hole at the top of his family's home. From that day on, the people have seen in the face of the Moon three things: the boy, his puppy, and his pack.

The Gwich'in "Boy in the Moon" narrative speaks of a view of the face of the Moon in three parts: boy, puppy, pack. Such tripartite views of the face of the Moon are as common around the world as our face in the Moon image (the Man in the Moon), or other

figures, such as "the Rabbit in the Moon." The Babylonians, like the Gwich'in saw such a three part image: a hero, an animal he was fighting, and a weapon. This we know both from texts, but even more so from a surviving Babylonian drawing dating to ca. 300 BC from the city of Uruk in Southern Babylonia (See Fig. 2).



300 B.C. engraving of a lunar image on a tablet from Uruk.

On this drawing we see three figures on the face of the Moon: a hero, a figure with a human body but the head of a lion that the hero holds in one hand, and a weapon that the hero is holding in the other, presumably to defeat the lion-man in battle. Although we do not yet fully understand this drawing, we can connect it to a broken passage in a soon to

be published astronomical text which describes how to draw constellations and other figures in the sky, including apparently this view of the face of the Moon:

*[Sin, c]rown, the moon-god Nanna, 30, (with) a tiara all a[round]
[. . .] . . the face of a lion, torso of a hum[an figure]*

Here we learn that the Babylonians long ago, like the Gwich'in down to this day, saw three figures in the face of the Moon: a hero, an animal, an object associated with the hero: In the case of the Gwich'in, according to one tradition, the Boy in the Moon, his puppy, and his pack. In the case of the Babylonians: a hero, his enemy the lion-man, and the weapon he is using to fight the lion-man. Who this Babylonian hero might be in our picture is unclear, but at least one related tradition found in a mystical text suggests

that it is the god Nabu, the son of the Babylonian King of the Gods Marduk, with a reference also being given here to Marduk's enemy in the Babylonian creation epic, *Enuma Elish*, which tells how Marduk created Heaven and Earth out of the sea-goddess Tiamat's corpse after putting her to death and butchering her body:

*The which is inside the Moon is the god Nabu . . .
The dagger above the lion is of the hand of . . .
Tiamat is seen inside the Moon . . .*

Thus in partial answer to my original question, which brought me to Alaska, the Canadian Arctic, and the Smithsonian Institution: How much of what I read in cuneiform texts is specific to Mesopotamian culture, and how much is common to us all, past and present, here or there? - I would answer, that all human cultures seem to see pictures of traditional figures in the face of the Moon. This is common to us all. However, the variety of images that we see, and how we understand these images, reflects the diversity of human culture. Where the Babylonians saw gods, and their core mythological traditions, the Gwich'in see a culture hero, the Boy in the Moon, who represents an important value in Gwich'in culture, generosity to the needy in hard times. We might say, we all share the same Moon, but see in its face different reflections of our diverse selves.

COLLECTIONS

'NOT OURS': OBJECTS REVEAL SMITHSONIAN LINK TO THE LOST DELONG EXPEDITION (1879–1881)

By: Igor Krupnik

A search leading to exciting discoveries in the NMNH Arctic ethnology collection began a few months ago with a causal comment by one of our research visitors. In November 2014, I accompanied Dr. **Zinaida** (Zina) **Ivanova** from Yakutsk, Sakha Republic, in Arctic Russia, to MSC. Zina, a partner from the **Jesup-2** era of the 1990s, has researched all major Siberian collections in North America hunting for objects from her native Sakha/Yakutia. The largest Sakha collection is in the American Museum of Natural History in New York and was assembled by **Waldemar Jochelson** who was a member of the Jesup North Pacific Expedition in 1901–1902. The Smithsonian's Natural History Museum also hosts a small collection from Yakutia that Zina studied during a previous visit. On her recent trip she just wanted to have a second look at a few objects and take some additional measurements.

The objects were already laid out when Zina arrived. After just glancing over a large reindeer fur coat, she quietly murmured 'Not ours!' and proceeded to other objects. When she had finished, I brought her back to the fur coat and asked for clarification. Zina explained that the coat had none of the characteristics of tradi-



Igor Krupnik, Zinaida Ivanova (right), and Evgeniya Ivanova-Unarova (center) examine Harber's fur coat (kukhlanka) at MSC. Photo: Maxim Ivanov-Unarov.

tional Sakha, Evenk, or Even clothing and most closely resembles Koryak garments from the Pacific coast hundreds of miles further east. It is a man's winter working coat made of doubled reindeer skins known by the Russian Siberian name *kukhlanka*, in good shape, but of little ethnographic interest, at least to her study. When I asked how a Koryak fur coat ended up in the Yakut/Sakha collection, she had no idea.

We measured the coat (105 cm long), and when I tested its length on me, Zina said, 'Yeah, it was made for a big man like you.' She explained that a Koryak man's winter coat should only reach slightly below a person's knee – which it did for me, but certainly not for a shorter Siberian man. Intrigued by the coat's unusual size, I checked it carefully and soon found an inscription scratched on the inside of its long collar (apron): Lt. G.B. Harber USN. In an instant of inspiration, I understood it as **Lt. Harber, US Navy**.

A few hours later, at my computer, I learned more about this man. Lt. Giles Bates Harber (1848–1926) was the US Navy officer sent to East Siberia in 1882 to explore the fate of the lost **George W. DeLong Expedition**, whose ship *Jeannette* was crushed in the polar ice and sank in the summer of 1881 in the East Siberian Sea. Thirty-three U.S. Navy officers and enlisted men under the command of Lt. DeLong (1844–1881), a veteran Arctic explorer, tried to reach the Siberian mainland shore. Many of them perished on that dangerous trek, including DeLong himself.

Thus our 'Koryak' fur coat was connected to one of the most heroic and tragic sagas in the history of the U.S. Arctic exploration. I immediately sought help from several experts: our own **Felicia Pickering** from Anthropology Collections, **Mark Mollan**, at the Old Navy/ Maritime Reference Section of the U.S. National Archives, and **Kevin Wood** at the University of Washington, oceanographer and historian of polar explorations. Felicia dug in the SI acquisition and photo records, and also reached to **Tad Bennicoff**, at the Smithsonian

Institution Archives, whereas Mark sent me Harber's Navy Officer personal record. Soon we discovered an online copy of Harber's 80-page report in search for DeLong Expedition submitted in May 1884 to the U.S. Congress by the Secretary of the Navy. These sources, including Harber's notes and letters, acquisition cards, and old photos helped collect many pieces of our 'fur-coat puzzle.'

Giles Bates Harber was born in 1848 in Youngstown, OH, and graduated from the U.S. Naval Academy in 1868. He had the usual Navy officer's start, climbing the ranks and changing ships and stations, until, as stated rather cryptically in his record, he was detached in February 1882 "to special duty in search of *Jeannette*." He returned two years later, as if it were an ordinary voyage and continued his service. He had a distinguished Navy career, according to his record and a short Wikipedia entry, ending as a decorated rear admiral and the Commander-in-Chief of the U.S. Pacific Fleet. He lived for many years in the Washington area in his various assignments with the Naval Academy, also as the President of the Navy Retirement Board, President of the Navy Examining Board, and finally at age 70, as Commandant of the Navy Units of the Georgetown and George Washington Universities. He died in 1926 at his hometown of Youngstown.

Harber's most memorable accomplishment was his two-year mission to Siberia on a search and rescue mission for the DeLong Expedition remains. By the time he was sent to Russia, the tragic fate of DeLong's party was already known. *Jeannette* with 33 crew members sailed from San Francisco in July 1879 to explore a passage to the North Pole via Bering Strait and the recently discovered ice-free waters of the northern Chukchi Sea. The voyage was financed by **James Gordon Bennett, Jr.**, the owner of the *New York Herald* and a great enthusiast of Arctic polar exploration. After passing Bering Strait and Herald Island in the Chukchi Sea, *Jeannette* was quickly trapped in dense pack ice and remained beset for almost two years. The crew stayed with the ice-bound ship as it continued to drift slowly across the Arctic Ocean towards Siberia, and hopefully toward its goal, the North Pole. Unfortunately, this was not to happen. *Jeannette* was crushed by heavy ice in June 1881 at 77°N and 156°E, forcing DeLong and his crew to make a dreadful ice trek toward the Siberian shore,

hauling sleds with supplies and three ships' boats over the ice. Eventually they reached open water, and during a storm became separated into three parties. The smallest boat capsized and sank, whereas two other parties landed far apart from each other on the Lena River delta. One party eventually reached a Yakut settlement and was rescued; the other, under DeLong's command died of starvation, except for two men who were sent off to seek help. The bodies of DeLong and his companions were soon found and temporarily interred on the frozen Siberian coast, on top of a hill, that reportedly is still known as *Amerika Khaya* ('American Mountain'). Harber's daunting task was to retrieve these bodies and bring them back to the U.S. for proper burial.



"Lt. Giles B. Harber in Siberian costume, DeLong Relief Expedition" (caption on the back of the photograph, NAA inv 04121700)

Harber's mission was far from 'ordinary.' Accompanied by another U.S. seaman, **William Schuetze**, he crossed the Atlantic and travelled via Paris, Berlin, St. Petersburg, and Moscow to the city of Nizhny Novgorod, at that time Russia's easternmost railway destination. From there the two Americans traveled by sled across Western and Central Siberia to the headwaters of the Lena River. They traveled down the Lena River by boat until they finally reached the delta in July, 1882, and began their search for the remains of the DeLong party. They covered several hundred miles of coast on foot and in small boats before reaching the burial site. Then it took them 15 (!) months, crisscrossing northern Yakutia several times to obtain official Russian permission to exhume the bodies and to move them back to Yakutsk for further transportation to the U.S. The large sled caravan with ten caskets left Yakutsk in late November, 1883, and began its return trek

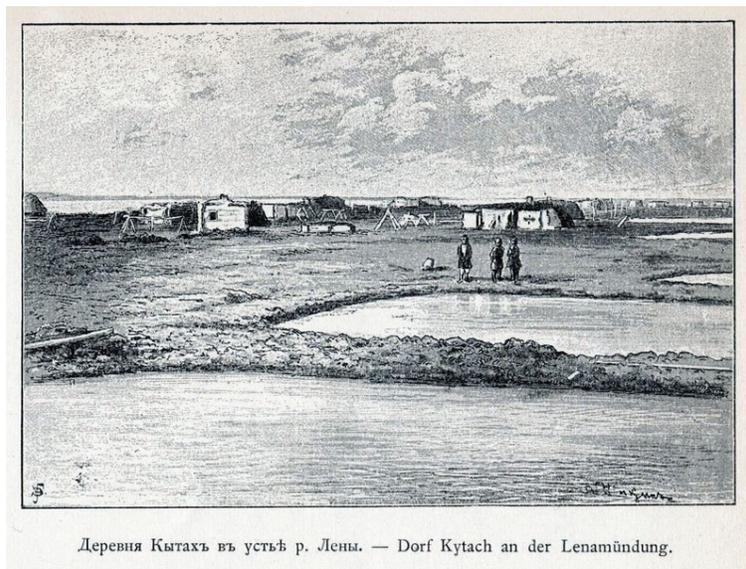
across Siberia. After almost two months, they reached the closest Russian railway station and proceeded by special train car to Moscow, Berlin, and Hamburg, and then by boat to the U.S. The bodies finally arrived in New York City and were given a public funeral on February 23, 1884, after which DeLong and five of his men were buried in Woodlawn Cemetery in the Bronx. On that day, Lt. Harber returned to his regular Navy duties. Three months later, a piece of wreckage from the *Jeannette* was found in the broken ice off the town of Juleanehaab (now Qaqortoq) in Southwest Greenland, completing her five-year drift across the Arctic Ocean and fulfilling DeLong's original dream. This failed venture soon inspired a similar ice-bound drift voyage by the Norwegian scientist, **Fritjof Nansen**, in *Fram* in

1893–1896.

Although DeLong was praised and honored as an American hero, there is no record that Harber was in any way rewarded by the Navy for his extraordinary service. He continued his Navy life surrounded by Siberian memories, notes, and memorabilia. Eight years later, in January 1892, he donated a box with 11 clothing items that he had purchased in Siberia to the U.S. National Museum (now NMNH); all entries were accessioned by the Museum's ethnology curator, **Otis Mason**. Number 1 on Mason's list was the large reindeer fur coat called a *kuklanka*, the very same piece that Zinaida and I inspected in November 2014. Harber's small collection also included skin boots, leggings, mittens, stockings, a fur hat (hood) made of fox skin, a pouch, and a 'boa' of fox tails to breathe through during cold weather, in other words, a full outfit for a winter traveler. The NMNH collection records for these objects now include some comments by the late Dr. **Ilya Gurvitch** (1919–1992), a Russian Siberian anthropologist recorded by **William Sturtevant** in 1982. Harber also posed for several photos in 1892 now kept at the National Anthropological Archives, wearing his Siberian clothing. They feature a big mustachioed man dressed in the full winter garb of an Arctic traveler.

In a rare case of excellent provenience, we even know when the clothing (or its prototype) was actually made and purchased by Harber. In August–October 1882, while traveling in the Lena River delta, Harber and his party visited local Native (Yakut and Evenk) camps and also the Russian observation station for the International Polar Year 1882–1883 at Sagastyr. Russian officers

at the station, **Nikolai Yurgens**, **Alexander Bunge**, and **Adolf Eigner**, assisted Harber in his surveys and facilitated his contacts with the Natives, who produced winter clothing for his party. As Harber writes in his report:



Деревня Кытахъ въ устьѣ р. Лены. — Dorf Kytach an der Lenamündung.
The village of Kytakh in the Lena River Delta where Harber's clothing was reportedly sewn. From the Russian report on the IPY Expedition to the Lena River, 1882–1884 (NOAA <http://www.arctic.noaa.gov/aro/ipy-1/images/EL-102-UR.jpg>)

Meanwhile our clothing had all been made from reindeer skins and sleeping bags from felt, which was given us by Lieutenant Jurgens [at the Russian IPY station]. Our outfit for sledging, consisted, besides the usual woolen underclothing and cloth suit, of a double "kuklanka" (sic.), a garment somewhat resembling a large shirt with a hood to cover the head; reindeer stockings, made from the skin of young animals, boots reaching to hips, made from the skin of reindeer legs, and a fur hood or bonnet made of fox skin. Sometimes trousers of reindeer-skin were worn, adding greatly to comfort if there was much wind or the cold was greater than 50 degrees below zero.



Felicia Pickering examines Yakut fur hat (hood) worn by Harber.

The clothing was most certainly sewn in the Yakut (Sakha) village of Kitakh of some 60–70 residents located next to the Sagastyr IPY station where Harber and his people spent several days in October 1882. Yakut seamstresses used skins from wild reindeer killed earlier by Harber's party, as well as those purchased from local residents at several nearby camps. These are the items that we now have in our 'Yakut' collection, except for the 'trousers' (skin pants).

Harber's small clothing collection turned out to be an unexpected entré to the heroic era of polar exploration of the late 1800s, marked by the names of DeLong, Nansen, the First IPY of 1882–83, and another tragic American expedition led by **Adolphus Greely**, some of whose members, including Greely, were rescued in the

same year of 1884. The story includes our Smithsonian pedigree from **Otis Mason** to **Bill Sturtevant**, **Ilya Gurvich**, **Zinaida Ivanova**, and **Felicia Pickering**. It also proves how valuable to our collection knowledge are visits by outside experts, particularly those with deep experience in their Native cultures and lifestyles. As in this case a passing comment, ‘Not ours,’ may be an invitation to an exciting new research journey.

In preparation for this paper, Felicia and I examined Harber’s clothing pieces one more time. Some were clearly worn over his Arctic trips, whereas a few others looked fairly untouched and were perhaps purchased in Yakutsk in advance of his final journey to America in November 1883. They were obviously made for a visiting traveler, as seen from the size and lack of ornamentation, compared to Native garments in most museum collections and catalogs. Some objects have cloth lining, and Harber’s fur coat (*kukhlanka*) even features front pockets that would have been unthinkable for a Native costume.

And finally: Why did the Yakut people in the Lena River delta produce a ‘Koryak’ fur coat for Harber in 1882? I believe this may have been a case of growing ‘cultural globalization.’ Traditional Native clothing worn by the local Yakut/Sakha, Evenk, and Even people was poorly suited for big European men who needed a different type of ‘working clothing.’ I believe local seamstresses had probably already developed a certain standardized ‘Siberian’ type of fur clothing items for their many visitors and produced them on the commercial basis. As European explorers, whalers, traders, teachers, doctors, and missionaries set foot across the Arctic, they created new markets for food, pelts, Native trade goods, services, museum objects, but first and foremost, for warm garments. We have reports from the late 1800s from many polar communities where Native women worked during the winter months to produce sets of warm boots, mittens, and coats for the Euro-American ships due to arrive the next spring. Naturally, while preserving some basic principles of Native fur clothing, they simplified local templates and ornamentation styles in favor of large sizes and sturdiness, like they do it today with the commercial skin boots, hats, and slippers sold in souvenir stores. They experimented with and often ‘Creolized’ the items produced for the visiting Europeans by mixing specific Native patterns, like combining a ‘Koryak-style’ upper coat with a typical Yakut fur hat (hood). Many of these items—like Harber’s Siberian traveling suit—eventually ended up in museum

ethnological collections. This is yet another important message of the story of Harber’s *kukhlanka* that started from a soft-spoken comment, ‘Not ours.’ I am grateful to **Felicia Pickering**, **Kevin Wood**, **Mark Molan**, and **Tad Bennicoff**, who assisted me on this search.

THE SHAW COLLECTION: A GIFT OF 60 ETHNOGRAPHIC OBJECTS FROM GREENLAND

By: Igor Krupnik

Like many good collection stories, this one began with a phone call from the Smithsonian Public Office in late April 2014. “Dr. Krupnik, Would you mind giving a call to Mr. **Craig Shaw**. He wants some assistance in assessing his family collection from Greenland.” Such

requests most often come from people who have discovered an old family heirloom in their basement or attic and are looking for the insight on what they possess. A call to Mr. Shaw from Chantilly, VA., revealed that he was offering to our examination a small collection assembled by his late father, Lt-Colonel **Donald Shaw**, while on military service in Greenland during World War II. The ‘younger’ Shaw was now moving out of the area and he wanted to donate his father’s specimens to the Smithsonian “if you are



Objects from Shaw collection laid out in Igor’s office, May 2014.

interested.” I asked Mr. Shaw to take some pictures of his collection and send it to me. A week later, I stared at images of a few dozen ethnographic objects assembled on a kitchen countertop and then shared them with my colleague **Stephen Loring**. “Oh, Igor, this is a great collection!” Stephen said. “It is exactly the sort of material from Greenland that we may be missing in our holdings. You better go and bring it here.”

When I visited Mr. Shaw in Chantilly the next day, the movers were already hauling away the furniture and family possessions. The objects from the photographs had been taken off the kitchen countertop and were placed on large sheets of paper on the basement floor. It was clear from the first glance that we have been offered a fine collection. The set of 60 objects included dolls, wooden sculptures, miniature ivory figurines, models of hunting gear, and many pieces of ‘souvenir art’ – small pouches, ivory spoons, beaded necklaces, ornamented bead stripes, and the likes. As I was packing the objects in large plastic bins, Craig Shaw told me his father’s story.

Donald A. Shaw was born on March 14, 1914 in Marblehead, small coastal town in eastern Massachusetts, where he spent his childhood and teen years, until the

family moved to Sandwich, NH in 1932. He attended the University of New Hampshire between 1932 and 1935 taking classes in Sociology and Psychology. Either field was hardly of value to Mr. Shaw's future life as a military airman; yet some skills he acquired in his college years had a formative impact on his career. An athlete and avid outdoorsman, Mr. Shaw became a licensed professional ski instructor with the newly formed Eastern Slope Ski School in Jackson, NH. He was also a First Aid and Safety Instructor (certified by the American Red Cross National School), and an accomplished dog-sled racer and trainer winning several New England dog-sled races in the late 1930s. (Besides the Alaskan Iditarod, the New England Dog Sled Club used to have highly prized dog-sled championships at various New England towns since 1925; see <http://www.nesdc.org/History.htm>).

When World War II began in North Atlantic, British forces occupied Iceland in April 1940, and a year later, the Americans took military and economic control of Greenland to forestall a prospective German invasion. So, when Shaw, then 27, enlisted in the U.S. Army in March 1941, nine months prior to Pearl Harbor, he was quickly re-assigned to the Air Force for special Arctic survival training.

In September 1941, Shaw and his comrades from the Arctic Search and Rescue Division under the command of Lt. Colonel **Norman Vaughan** from Manchester, NH, were tracking prospective military sites in East Greenland. In July 1942, Shaw was stationed for eighteen months in East Greenland, where the U.S. Air Force established a base called 'Blue East II,' 57 km northeast of Ammassalik, now called Tasiilaq. He was soon promoted to second lieutenant and embarked on several missions, including fighting German agents around Scoresby Sound and serving as commanding officer of a Greenland icecap survey station. After the war moved to Europe, Shaw and his comrades, together with their 160 Eskimo huskies, dog-sleds and toboggans, were sent to Belgium and northern France, to assist in rescuing the downed American pilots and supplying troops during the winter campaign of 1945. After the war, Shaw participated in several rescue missions for teams of crashed American

military planes over Greenland and Arctic Canada, and in 1960–61, he served as Commander of the U.S. Arctic Ocean Scientific Research Station on a floating ice island in the Arctic Basin. He retired in 1966 as Lt-Colonel and eventually moved to New Mexico, where he passed away in 1990. For a young musher and skier from rural New England, his was a distinguished career that propelled him to the ranks of top experts in Arctic rescue and combat survival training, as well as polar science research.



Donald A. Shaw, 1914–1990, in his military uniform. Copy from Craig Shaw's personal files.



Two souvenir female wooden dolls (length 42 cm) in Greenlandic colonial-era clothing. A very close doll from West Greenland is in AMNH collection (length 50 cm); acquisition (gift) of 1937.

Yet my mission on that day was to 'rescue' a small collection of ethnographic objects that Shaw assembled during his two years of service in Greenland in 1942–1944. Unfortunately, he left no record or any provenience to individual objects, not even the place where they were acquired. Shaw had served primarily in East Greenland; but his personal papers also contained a two-page handwritten 'glossary' of most common Eskimo (Inuit) words. According to **Carl Christian Olsen (Puju)**, a Greenlandic linguist from Nuuk, the short list of words was written in West Greenlandic (Kalaallisut) language, most probably from around Sisimiut in North Greenland. Shaw's small set of personal papers also included a one-page letter from July 3, 1942 written in Greenlandic and signed by Hendrik Aleelsen from Kuugmiut (now Kuummiut). **Louis-Jacques Dorais**, linguist from Université Laval in Québec, kindly translated the letter, which was an invitation to 'Don Shaw' to take part in a fishing expedition. According to Louis-Jacques, it was probably written by an educated East Greenlandic, perhaps a teacher trained in the standard West Greenlandic orthography of the time. Evidently, Shaw had personal connections in Greenland, during his many dog-team surveys, both on the East and West Coast.

That helps explain the mixed nature of Shaw's Greenlandic collection. The young American airman was by no means a trained ethnographer and was most certainly looking for what may be called 'souvenir' or 'tourist' art of his time. Some of the objects he purchased look like true gems, including two pairs of dolls in East Greenlandic clothing; a characteristic water bucket from East Greenland decorated with small ivory images of seals and narwhals, and a small wooden tool

box, also from East Greenland, ornamented with similar images. Similar objects from the early-mid 1900s are available in Greenlandic ethnographic collections at the American Museum of Natural History (AMNH) in New York, at NMAI, Museum Volkenkunde in Leiden, the Netherlands, and of course, at the National Museum in Copenhagen. Shaw also collected several small ivory carvings, including miniature figures of a man and a woman playing a drum, and one typical female tupilak (monster) figurine, of which we have a very fine collection from later decades (ASC Newsletter 2004, pp. 18–19). He acquired three exquisitely decorated models of hunting equipment – a killing lance, a seal harpoon, and a kayak paddle, each about 60 cm long, and also a full-size ivory harpoon point with an iron blade, and a wooden spear-thrower, both in decorated leather sheaths.

As an amateur collector, Shaw was also prone to buying objects from the pure ‘souvenir’ or ‘tourist art’ domain. These include two large wood head sculptures of an Inuk and European man, a set of two large ivory paper-knives in a lovely wooden box, three beaded necklaces that he later mounted in picture frames, and two black stone carvings that might have come from his later trips to Canada, as they are carved and signed at the bottom in the Canadian Inuit style. He also picked several decorative embroidery leather bands that Greenlandic women used for edges of their skin boots; numerous decorated leather pouches as if coming from today’s airport souvenir stall; and a set of miniature ivory spoons, forks, and fish knives decorated with images of eagles (?), beluga whale, and fish. The latter was reportedly a fixed souvenir table set introduced by some Danish trade-post managers in West Greenland in the late 1800s to stimulate Greenlanders’ commercial carving and its marketing appeal to Danish and other European buyers.

Altogether, Donald Shaw’s collection offers an intriguing projection of the emerging early market for tourist or ‘souvenir’ ethnographic art in East and West Greenland, both at the high and low end of artistic creativity.

Such a mixed composition gives it a very special value combined with the well-defined date (ca. 1942–1944) that puts it chronologically ‘in between’ the major components of the NMNH Greenlandic ethnographic collection of more than 800 pieces (see ACS Newsletter 2004). Some objects come as if from the illustrations to **William Thalbitzer** and **Kaj Birket-Smith**’s classical ethnographies on the East and Northwest Greenlandic cultures, while others are typical low-end souvenir pieces of the pre-WWII era. Specimens of both kinds—dolls, figurines, models, pouches, beaded embroideries, etc.—constitute the bulk of Greenlandic ethnographic collections in the world’s lead museums, such as AMNH, the Volkenkunde

Museum, the Canadian Museum of History (former CMC), and others.

This is the main lesson we may take from the first assessment of our new Greenlandic gift. Donald Shaw was not a systematic collector and he followed a rather eclectic pattern in his acquisitions. Yet he perhaps never thought of how much we may learn today from the objects he purchased about the origins and transformation of ‘tourist’ or souvenir art in rapidly changing East Greenland of his day. By the 1940s, its people had already experienced some fifty years of commercial exchange with Danish administrators, stationed West Greenlandic teachers and catechists, visiting foreign sailors, hunters, and scientists, French, Norwegians, Germans, and Americans. All of these people were looking for souvenirs to take home from an ‘exotic place.’ That drive had already created a

potent market canvassed by a young American military man. We are grateful to **Craig and Connie Shaw**, now living in Taiwan for carefully preserving this legacy and for generously donating their family possession to the Smithsonian. **Carl Christian Olsen** and **Louis-Jacques Dorais** kindly helped with the translation of written Greenlandic texts in Shaw’s personal files. **Janet** and **Dirk A. Shaw** assisted with certain details on Don Shaw’s biography, and Stephen Loring offered advice and encouragement. We hope to introduce some of the objects from our new ‘Shaw Collection’ to the



“Gems” from the Shaw Collection: a wooden water bucket, toolbox, two dolls, and woman’s knife (ulu) from East Greenland.



Souvenir models (length ca. 60 cm) of toggle-head harpoon (bottom), killing lance (middle) and kayak paddle (top).

museum visitors at the coming 'Arctic Spring' festival in May 2015. Meantime, I hope to continue the study of the collection with the assistance of **Yifei Wu**, a 2015 ASC intern, from the Uppsala University, Sweden, who is interested in similar transitions in ethnic and souvenir art among the Saami people of Northern Sweden.



Craig and Connie Shaw, May 2014.

OUTREACH

SMITHSONIAN NOMADS IN MONGOLIA

By: Bill Fitzhugh

Every other year the Smithsonian Journeys Program runs a trip in Mongolia, and this year my wife **Lynne** and I, as host and trip leader, spent two weeks from 27 August to 11 September traveling with a remarkable group of people to some of the most interesting places in this fascinating country. It was not difficult to pick them out in the departure lounge of the Seoul airport amidst a sea of North Asian faces; their grey hair, new REI boots, and sporty hats did the trick even without hunting for Smithsonian luggage tags. Fortunately everyone arrived without mishap, and once in Ulaanbaatar about midnight we soon found ourselves ensconced in palatial stone-walled rooms in the old Ulaanbaatar Hotel—once THE place to stay in Soviet luxury, but in modern trendy UB, a place where you might wake up to a cold shower.

Our orientation introduced us to **Amgaa**, our local guide and operator from the Nomad Tour Company, and within no time we were out on the town for a day of sight-seeing, principally at the National Museum of Mongolia, where we met **Bayaraa**, my archaeology partner of the past decade. The museum has wonderful exhibits of Mongolia's prehistory, history, and ethnography and was a good primer for our excursions. We also visited the famous Gandan monastery, one of the

few Buddhist temples that avoided destruction during the Stalin era.

To The Gobi

The next morning we hopped a flight to Dalandzadgad, a regional center in the northern Gobi Desert. That we were in a desert was not exactly obvious, since everywhere we looked we saw herds of sheep and goats, occasional cows, and many horses. Here, if you look at the ground from an airplane, or just at your feet, you see nothing but sand. But if you crouch down and sight along the ground, it turns a miraculous green. This mystery has not been lost on the animals; green is good, and from their perspective it is endless, even if the blades of grass are several feet apart!

We were met by three drivers in snappy new Toyota SUVs that had not yet been defeated by the potholes, dust, and heat. We were lucky that the few days we spent here were mild, and of course, dry. Highlights were tours of the local natural history museum and excursions to the Altai Khongor sand dunes—nearly 1000 feet high—where we rode camels, got defeated trying to climb the shifting steep dunes, and drank milk-tea with herders. Here **Peter LaDelfe** embarrassed our crew of camera-clickers by showing us what a really

good picture of a full moon and dunes at sunrise could be.



Annie, Peter, Roger, and Everett at the Khongor dunes.

The Gobi offered historical surprises too. A climb to an Altai ridge brought us to a field of ancient petroglyphs reaching back into the Bronze Age and earlier. We visited the Flaming Cliffs where Roy Chapman Andrews found the first dinosaur eggs in the 1920s. Nearby in the oasis town of Bulgan we found an agricultural enterprise growing tomatoes, cucumbers, and other crops with water from an underground

river. One of the big surprises for me was to see the progress Mongolia has made in recent years developing home-grown agricultural production. Many of the river valleys and hill-slopes in Central Mongolia that used to be pastures are now large-scale farms growing crops like grain, soybeans, and corn.

Karakorum and the Orkon Valley

We returned briefly to UB for a night and then set out by bus to Karakorum, the 13th century Mongol capitol city a dusty day's ride to the west. Here we toured the 16th century Erdene Zoo monastery founded on the ruins of Genghis Khan's capitol and enjoyed excellent museum displays in a new museum built with assistance from Japan. Inside the monastery walls we

learned about the ancient tradition of Buddhism and marveled at the complexity of its theology and art. Outside, we walked where a German-Mongolian archaeological team has been excavating Karakorum for more than a decade. The ground was littered with potsherds that demonstrated Chinese influence on 13th century Mongol life.

As had happened in the Gobi, our NOMAD cook truck miraculously materialized in our path every day at 12:00 noon. Whether we were slogging through a snow-squall or beating up-wind across some dusty plain, and out of nowhere, an old beat-up Russian truck belching smoke from a cook-stack, giving off the most delicious aromas, would pop up in our path. SUVs would be pulled up as wind-breaks, awnings erected and tables set, and big bowls of steaming soup and spicy salads and mixed meat dishes would appear. This was astounding to old Mongolia hands, a revolution in the mutton and starch diet that has been tradition Mongolian fare. Our ladies—**Lynne, Annie Farrar, Sally Schenk, Carol Schilling and Jackie Reasoner**—were especially delighted. How this was managed out of the back of a truck was a real mystery.

On the way back to UB we over-nighted at a small monastery nestled in the clutch of knobby granite hills. The monastery had been destroyed several times in the past, but a small section remains perched among the granite outcrops, tended by a woman whose son, a monk, visits occasionally. Almost all of Mongolia's monasteries were destroyed in the war of Whites and Reds in the 1920s or during the Stalinist purges of the 30s. While exploring the crags nearby **Sally and Everett Schenk** came across a shamanist ritual site festooned with prayer ribbons, a fur coat and a small suitcase, and fresh food offerings in a bowl, probably for someone recently deceased related to a worker at our nearby ger camp. Shamanism and Buddhism coexist comfortably in Mongolia.

We stayed the next night at Khustai National Refuge

a few hours west of UB. Khustai is famous as the home of Mongolia's re-introduced Przewalski (takhi) horses—the wild horses that were hunted nearly to extinction in Mongolia in the early 20th century. Today the herd is growing nicely, under completely natural terms, which means losing a percentage of their young and adults to wolf predation. We found the horses grazing in a valley whose upper slopes were teeming with elk—the Siberian Maral (the European Red Deer)—the same animal featured on Bronze Age deer stones.



Everett Schenk's photo of a shamanist ritual site with ribbons, a fur coat, and travel accessories.



Shaman performance at Tuul River camp.

Khovsgol—Siberian Mongolia

Our final excursion took us to Khovsgol aimag in northernmost Mongolia, named for its famous lake, the headwaters of Lake Baikal and the highest, purest, and one of the largest in Eurasia. Khovsol is where I conducted several years of archaeological work on its Bronze Age deer stone monuments and khiriguur burials, an elaborate ceremonial system and artistic complex that we discovered contributed to the formation of the Pazyryk and Scythian cultures of central and Western Asia.

After landing at the Muron airport we spent an hour at the Ushigiin Uver site which has 14 standing deer stones, including one that our team cast and stands today in the UB museum foyer. The deer stones depict 3000-year old warrior chiefs with images on their torsos of maral deer with huge scrolling antlers, but whose heads are of birds with long beaks. The same images appear in Bronze Age rock art and were probably tattooed on the bodies of individuals the

stones represent.

From here to Lake Khovsgol we traveled on what is certainly the finest highway in all of Mongolia, paved with manicured embankments and culverts, painted lane markers, and reflectors. Were we still in Mongolia? Impossible? But nirvana did not last long, and before we reached our ger camp on the southeast side of Lake Khovsgol we found ourselves slogging in a muddy track in rain and spitting snow. Rising in the morning we found the mountains on the west side of the lake gleaming with snow. After a day of kayaking, hiking



The tour team at Ulaan Tolgoi deer stone site.

the larch forests, and visiting a family of Dukha reindeer herders (lots of petting of their reindeer!) we again braved the mud and returned to a ger camp outside UB in the valley of the Tuul River. Getting there was more than half the fun, cresting a high ridge and descending by truck into the valley at a 30-degree angle. We spent our last day riding horses, enjoying more NOMAD meals, and observing a shaman's drum dance in front of a roaring bonfire.

The trip touched many of Mongolia's outstanding features—its deep history, friendly people, spectacular landscapes. What made it most enjoyable was the friendship that developed during the long days of travel, sight-seeing, and learning. Although not previously mentioned, Roger Allen, Curtis Farrar, and Drew Schaff also provided the group with insights and life experiences that widened our horizons. The entire group, our guide Amгаа, and the NOMADS touring group made his Smithsonian journey one that will long be remembered.

ARCTIC SPRING FESTIVAL SUCCESS!

By: Bill Fitzhugh

More than 50,000 people were in the museum during the festival and over 5,000 people interacted directly with experts at stations in the Sant Ocean Hall and the Evans Gallery, while an additional 1,900 visited the Q?rius Education Center to play games, learn crafts, explore objects, jam on video games, and watch films related to Arctic science and culture. Just as one example, **Martin Nweeia's** narwhal station in the Sant Ocean Hall logged 1,262 visitors in four hours! The festival also featured performances in the Rotunda and Q?rius Loft by a youth group from the Uummanaq Children's Home in Uummanaq, Greenland, and a contemporary music and dance performance by **Jody Sperling's** NYC-based dance team on the theme of melting Arctic ice. Visitors and experts, young and old, local DC residents, and travelers from afar all had great conversations with Arctic experts and unique educational experiences throughout the Museum.



Martin Nweeia attracts a crowd with his replica narwhal tusk!

The program began with a Friday afternoon panel discussion with eight Arctic experts from the Smithsonian (**Krupnik** and **Fitzhugh**), Arctic Research Commission (**John Farrell**), DOS (**Nikoosh Carlo**), Canadian Museum of Nature (**Margaret Beckel**), **Stephanie Pfirman** (Barnard college), **Craig Fleener** (Alaska Governor's office), and **Mead Treadwell** (former ARC chief and Lt. Gov. of Alaska). The panel was opened with *Sounds of the Arctic* by **Charles Morrow** and CAFF award winning photos set to sound by **Meghan Mulkerin**. Arctic films were shown on Friday at the panel and all day on Sunday, by the **Greenland Eyes International Film Festival**. A reception was hosted Friday night by the Danish/ Greenland Embassy. Friday afternoon and Saturday were devoted to the public education events noted above, presented by NMNH, NOAA, NPS, DOS, DOI, USFWS, BLM, CAFF, BOEM, NSSI, NAS, NSF, NASA, ONR, National Ice Center, Tromso Museum, the Arctic Council, the Canadian Embassy, the Royal Norwegian Embassy, and the Danish Embassy with Visit Greenland.

More than 150 people from over 20 partner organizations and agencies participated and provided materials and specimens, literature, website programs, Arctic ice



Igah Hainnu instructs Noor Johnson on traditional caribou carving. Ms. Hainnu is an artist from Clyde River, Canada, who was sponsored by the Embassy of Canada to come down for the Festival and share her knowledge and art with our visitors. Photo: James Di Loreto, Smithsonian Institution.



Joel Issak shows Meghan Mulkerin, Rebecca Clemens, and Barbara Stauffer the finer points of fish skin sewing. Photo: Robert Radu.

maps, temperature curves, and nature photography for the festival – among the more unique items were a musk ox (with head) and polar bear pelts; a demonstration on how to make boots from king salmon skins; a narwhal tusk; Greenland ethnographic objects; and an ingenious melting ‘glacier goo’ game led by the **PoLAR Partnership**. The **Ummannaq Greenland Youth Ensemble** performed numerous times in different places of the Natural History Museum.



Choreographer Jody Sperling, her company Time Lapse Dance, and composer Matthew Burtner present Ice Cycle for the evening dance performance on Saturday, May 9. Photo: Trish Mace.

The festival made a major contribution to public understanding of the Arctic and was a fitting way to introduce the new US Arctic Council Chairmanship period and its theme of public outreach and education. The Arctic Spring Festival would not have been possible without the generous sponsorship of our donors and the herculean contributions of **Meghan Mulkerin**, our new Program Coordinator in the Arctic Studies Center, and our colleagues in the Office of Education and Outreach, **Barbara Stauffer**, **Margery Gordon**, **Jen Collins**, **Trish Mace**, **Colleen Popson**, **Naimah Muhammad**, **Courtney Gerstenmaier** and **Megan Chen**. **Igor Krupnik**, **Stephen Loring**, and **Bill Fitzhugh** were also instrumental to the process of gathering partners and entertainers together for this wonderful program.

The Arctic Spring Festival was generously funded by: the Smithsonian's National Museum of Natural History, Arctic Studies Center, Living in the Anthropocene Initiative, and Recovering Voices, with additional support from The U.S. Arctic Research Commission, The PoLAR Partnership (supported by a grant from the National Science Foundation: DUE-1239783), Oak Foundation, The Ed Nef Foundation, Embassy of Canada, Royal Norwegian Embassy, and Embassy of Denmark.

REACHING OUT WITH GUTS ON SOCIAL MEDIA

By: Meghan Mulkerin

As soon as I heard the words "gut skin" I knew our hands-on workshop had the potential to be huge on social media. It has all of the major attractors: the shock/gross-out factor, a little-known but fascinating subject matter, and some solid educational content behind it, so it would be a clickbait title, but *Smithsonian* quality clickbait-- i.e. worth your while to actually read, unlike other tabloid style "You'll never guess what..." articles on the internet. I had seen the gutskin parkas in storage in the Museum Support Center many times, during the three years I worked on cataloguing River Basin Survey archaeological collections. I knew they were rain and snow proof coats made by indigenous residents of the Arctic, and that they were made out of walrus and seal intestines, but until I spoke with **Igor Krupnik**, I did not realize how vital these coats were to survival in the Arctic, nor that they represented a unique invention of Arctic peoples.



Arctic Studies
@ArcticStudies

Well-known inventions of Arctic people: skin boats, toggle-head harpoons, parkas, snow goggles (NMAI 23/5639) #qrius



RETWEETS 9 FAVORITES 9

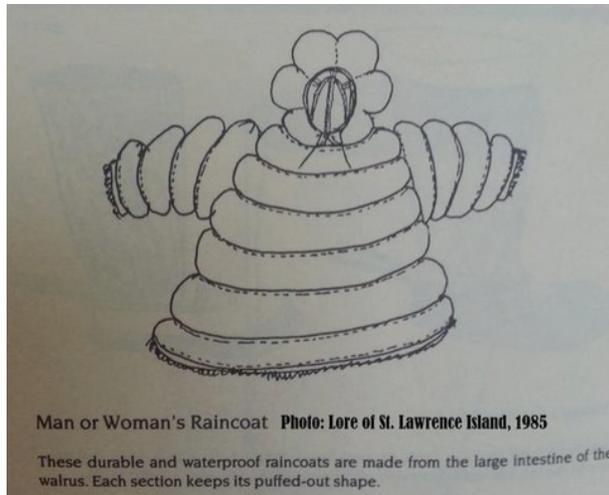
10:12 AM - 2 Dec 2014

Showcasing other inventions of Arctic peoples during the day of the workshop. Curator Dr. Igor Krupnik described the use of animal gut skin in Arctic clothing as "a firework of ingenuity!"

While Igor explained, I took copious notes on how gutskin parkas and other gutskin items were made and used, among other trivia. Coming away with several pages of notes, illustrations from reference books, and archival photos, I crafted the facts into individual tweets that would follow a good narrative structure to share with our followers throughout the day of the gutskin workshop. These tweets would brief our followers on the subject matter before the live-tweeting of the workshop began in the afternoon, during which we would share the experiences of the kids working hands-on with gutskin. Due to the Marine Mammal Protection Act, our D.C. school children would be working with hog intestines, rather than seal or walrus, but get much the same experience.

This day of tweeting was aimed at growing our fledgling presence on social media, and attract new followers to our account. In order to attract an audience, several days ahead of time, I followed many of the people who currently follow the account I started for **Dr. J. Daniel Rogers'** Office in the Department of Anthropology, [@ArchaeologyLab](#), to let them know we were around.

This worked very well, and many of those people followed [@ArcticStudies](#) back. I also followed many other accounts that have a demonstrated interest in anthropology, history, environmental studies, and the Arctic. In order to get noticed on Twitter, it is necessary to engage with other users, unless you are already so famous that people follow you no matter how little you reach out. By following other accounts selectively, you also are able to see what is going on in your interest groups and keep abreast of news that is relevant to you and the people and organizations that follow your account. In addition to this kind of organic growth, I contacted my fellow social media colleagues within the Smithsonian to let them know about



Man or Woman's Raincoat Photo: Lore of St. Lawrence Island, 1985

These durable and waterproof raincoats are made from the large intestine of the walrus. Each section keeps its puffed-out shape.



Arctic Studies
[@ArcticStudies](#)



Do you have a puffy jacket? The gut skin version is made out of walrus large intestines [#qrius](#)

1:57 PM - 2 Dec 2014



People were excited to learn about the connection between their modern puffy winter jackets and its Native inspiration, the gutskin parka. This tweet was shared 13 times, which allows everyone who follows each of those 13 people to see the tweet. This is how impressions are calculated. The more people that follow those users, the wider reach of your tweet. Many of the people who retweeted are "influencers" which means a lot of people follow their accounts, i.e. institutions like [@NMNH](#)'s 174k followers, and individuals like [@bobmuckle](#), 1660 and [@IainMcKechnie](#), 816.



Arctic Studies
[@ArcticStudies](#)

One brave participant says "I've fished with stuff worse than this" :shrugs: [#qrius](#)

Part of doing a good job with live-tweeting involves eavesdropping! And of course, participating and sharing your experiences. The more you can make people feel like they are there with you, and can share the experience, the more impact you will have.

our event, and asked them to promote it on their much larger accounts: [@smithsonian](#), [@Amhistorymuseum](#), [@NMNH](#), and others, including [@americanart](#), which we connected to by relating our content to their similar hands-on event, *Handihour*, an after-hours crafting event for adults. They tweeted back, which alerted their followers to take a peek at our feed.

After these events, it is possible to analyze how well you reached people through tools that measure how many people engaged directly with your tweets, or would have been able to see the tweets, based on how many people shared the tweet with their own followers. Around the time of this event, there were many unofficial tools to help measure engagement, for example TweetReach, which calculates the total amount of people who could have possibly seen your tweet by counting all the followers of all the people who shared your tweets, i.e. how many total user timelines that your tweets were delivered to that day. Of course, not everyone would have been on Twitter to see the tweets at that time, as the main feed that people read flows by in real time. So I compare this "maximum amount of people possible to reach" (called impressions) as "newspapers delivered." We don't know how many people read the newspaper, but we do know that we at least had

a chance of reaching them. Not too long before our event, Twitter had launched its own official analytics site, which directly measures the number of people who *actually* saw the tweets. Both this number, and the number that TweetReach calculates are called impressions, but measure different things as explained above.

According to Twitter's official analytics we received **23.6 thousand impressions** during the Gutskin workshop event, which included **71 link clicks**, **84 retweets** (people sharing our content), **66 favorites**, and **14 replies**. TweetReach estimated that our tweets had the potential to reach nearly **500,000 people** the day of the

event, if they had all been on Twitter. We went from having 100 followers before the event started, to more than **300 followers** after the workshop! That's a pretty huge amount of growth from one event, especially starting on a small account.

If @ArcticStudies continues to reach out this way, on multiple platforms, we have the potential to reach many new audiences with solid information about Arctic peoples, the environment, and issues facing residents of the North today. Stay tuned as we continue to grow our online presence, and please follow us on Twitter and Facebook, and watch for new videos on YouTube on the National Museum of Natural History's channel.

About the workshop: http://nmmh.typepad.com/arctic_studies/2014/12/material-traditions-sewing-gut.html
To read all the tweets in order, visit this Storify: <https://storify.com/ArcticStudies/gutskinworkshop>

ARCTIC CIRCLE REPORT

By: Wilfred Richard



The Arctic Circle is nonprofit and nonpartisan. Organizations, forums, think tanks, corporations and public associations around the world are invited to hold meetings within the Arctic Circle platform to advance their own missions and the broader goal of increasing collaborative decision-making without surrendering their institutional independence. It is designed to increase participation in Arctic dialogue and strengthen the international focus on the future of the Arctic. Participating organizations maintain their full institutional independence, identity, and decision-making abilities. To this end, the Arctic Circle aims to create opportunities for everyone to attend different meetings, conduct their own networking and engage in one-on-one infor-



Children from D.C. Public Schools learn about gut skin while making lanterns using balloons for support. One commented: "It's not as gross as I thought it would be!" Demetrius on the left said: "It's a little weird, but I am having fun!" Photo: Meghan Mulkerin.

mal discussions. Organizations decide their own agendas and convene their own meetings.

With climate change, as Canada's Northwest Passage opens to shipping between Europe and Asia, the North Atlantic is again becoming a primary maritime thoroughfare. Maine with its extensive coastline and centuries of sea know-how is well positioned to become a player in this new age of economic opportunities.

I was asked by **Dana Eidsness**, Director of the Maine North Atlantic Development Office and by **John Henshaw**, Executive Director of the Maine Port Authority, to join the State of Maine delegation to the 2014

Arctic Circle Assembly in Reykjavik, Iceland. Maine wishes to expand its global competitiveness, particularly in the markets of the North Atlantic region. Supporting this orientation, the Icelandic shipping company Eimskip recently moved the location of its headquarters in the United States from Virginia to Portland, Maine.

I participated and was impressed by the assembly of well-informed delegates from throughout the North Atlantic and North Pacific regions. I was delighted to share my new book *Maine to Greenland: Exploring the Maritime Far Northeast* (co-authored with Bill Fitzhugh) with Greenlanders and with **Senator Lisa Murkowski** of Alaska. This book, I believe, presents a comprehensive profile of Maine and of the North Atlantic region in which our state has been historically linked.



Senator Lisa Murkowski reads *Maine to Greenland*, by William Fitzhugh and Wilfred Richard.

Meeting at Harpa Convention Center in Reykjavik, Iceland, for three days, 1,400 delegates participated in 33 plenary sessions, beginning each day at 8:00 AM and running as late as 8:00 PM. According to my count, there were between 60 and 70 nations represented, an indicator of rising interest in the Arctic – well beyond the eight voting members of the Arctic Council, which geographically qualify as Arctic nations.

Sectors represented included federal, state, regional governments; Organization for Economic Cooperation and Development; The Arctic Council; The British Antarctic Survey; Russian Institute of Arctic Petroleum Technology; Icelandic Arctic Cooperation Network; Harvard Kennedy School; Dartmouth College; business and industry; shipping and shipbuilding; investment groups; environmentalists and climatologists; Arctic scientists; conservationists; energy / petroleum industry; indigenous peoples; wildlife interests – Arctic Ocean Fisheries, Conservation of Arctic Flora and Fauna; navigation; and security and safety.

Presentations and discussions coalesced around three themes discussed below: The Northwest Passage; Arctic Development - Pros and Cons; The Arctic Council and US Chairmanship. There was also a breakout session devoted to “Maine: A U.S. Partner in Arctic Development, Climate Science, and Security.”

The Northwest Passage

The year 2014 saw the first solo trans-Arctic crossing of a commercial ship, a vessel bearing iron ore, traveling unassisted. Commander **Blake McBride**, Associate Director, US Office of Naval Research, stated that “Singapore is increasingly a center of Arctic research.”

Kemal Siddique, Special Envoy for Arctic Affairs in the Ministry of Foreign Affairs, Singapore, underlined Commander McBride’s statement. Special Envoy Siddique approached me with a request for the Smithsonian to digitize its archaeology collection on display at the Anchorage Museum in return for materials shared from the National Museum of Singapore.



Kemal Siddique

It is envisioned that ports would be established in the North Pacific, perhaps in the Aleutian Islands, and in the North Atlantic (Iceland, Newfoundland, Quebec, or Nova Scotia). Singapore could become the apex of a grand geopolitical scheme represented by an inverted triangle connecting the maritime routes of the Northwest Passage, the Atlantic, the Pacific, the Indian Ocean, the Suez Canal, and the Strait of Malacca. To paraphrase **Robert D. Kaplan** (The Atlantic. “Dispatches Section – Foreign Policy: Warming to Iran” January/February 2015. Pp. 17-19):

...[T]he Indo-Pacific region remains the heartland of the world economy, home to the most important sea lines of communication and many economic powerhouses... (18).

According to **Peter Wadhams**, Professor, Dept. of Ap-

plied Mathematics and Theoretical Physics, University of Cambridge, “Summer sea ice may disappear in three or four years.”

Arctic Development – Pros and Cons

Much focus was placed on coordination of resource exploitation in the Arctic, particularly petroleum drilling and navigation of the Northwest Passage, where cold interferes with human thinking and dexterity, and where machines break down and metal snaps from the cold. While there are lots of petroleum reserves in the Arctic, the technology to extract does not exist. Challenges to cooperation include the expansionist policies of Russia versus the EU, the Common Market, and NATO. But the greatest concentration of Arctic petroleum is in Russian waters in the Kara and Yamal area.

Regarding development of the Arctic, **Samuel Perkin** of Reykjavik University states, “The most sustainable method of development is not to develop.”

Michel Rocard, Prime Minister of France in 1998–1991, and now Ambassador to the Polar Regions states, “It is not possible to use the Arctic without polluting it”.

Anatoly Zolotukin, Research Director, Russian Institute of Arctic Petroleum Technology, stated; “In human history, we have consumed 234 billion tons of oil. Extracting oil from the Arctic has massive externalities. To predict the past is easy; to predict future is difficult.”



Anatoly Zolotukin

Among views expressed by various speakers were the following: Respect the environment and arctic people; be patient in developing understanding with local groups. Need for a development bank to encourage private investment, and for infrastructure development; Need a structured plan within context of the Arctic Council and operating under the Rule of Law; Build a large container port in Iceland, Canada, or elsewhere in the North Atlantic operated by a Port Authority; For purposes of investment, “tomorrow is now”; Civil society tends to get lost in “private-public” agreements; Must have involvement of Russia – particularly with regard to liquid natural gas. Changing environmental conditions require collaborative research for fisheries--action by a single nation will not work; Russia, US, Denmark / Greenland, Canada with their exclusive 200 mile EEZ, working through the Atlantic Council could successfully manage Arctic fish stocks.



Jane Francis & K. Ingolfsson -Iceland

Jane Francis, Director British Antarctic Survey, noted: Long-term monitoring of the Arctic is needed to avoid short-term variability; Seasonal data are particularly important at the high latitudes of the Arctic;

and the Arctic climate is changing twice as fast as that of lower latitudes.



Fran Ulmer and Olatur Grimsson

Regarding the Arctic Council and US Chairmanship, **Fran Ulmer**, Chair of the U.S. Arctic Research Commission suggest the following zones of emphasis: Adaptation & resilience; community resilience especially in areas of suicide prevention and improved living conditions; Water and sanitation; Hybrid wind-driven energy; Synthesize all regional seas programs; Protect the marine environment.



Admiral Papp, Senator Lisa Murkowski, Alice Rogoff

State of Maine Delegation Presenters included **Dana Eidsness**, Director of the Maine North Atlantic Development Office; **Patrick Arnold**, Director Operations & Business Development Maine Port Authority; **Paul Mayewski**, Director of the Climate Change Institute,

University of Maine; and **Wilfred Richard**, co-author *Maine to Greenland: Exploring the Maritime Far Northeast* & Smithsonian Arctic Studies Center Research Collaborator.

Bottom Lines

Climate change and its environmental consequences of enhanced development of the High Arctic as a transportation corridor and as an additional source of hydrocarbons constitute actions fraught with undreamed of complexities. This point was repeatedly made with remarks on our current limited understandings of Arctic systems and broader relationships.

The complexities, challenges, and unknowns of High Arctic development are so great, that even developers and investors are sounding cautionary notes. The Russians are saying that with current status of technology only 10 percent of Arctic oil is recoverable. Even these guys who are talking about trillions in investment are wary - and with those investments contingent upon international cooperation, particularly with Russia, of Arctic exploitation.

ZEBRAS IN THE ARCTIC: A PARTNERSHIP BETWEEN THE SAINT LOUIS ZOO AND THE ALASKA NANUUQ COMMISSION

Jack Omelak, Executive Director of Alaska Nanuuq Commission

Lisa Lidgus, Conservation Education Liaison, Saint Louis Zoo

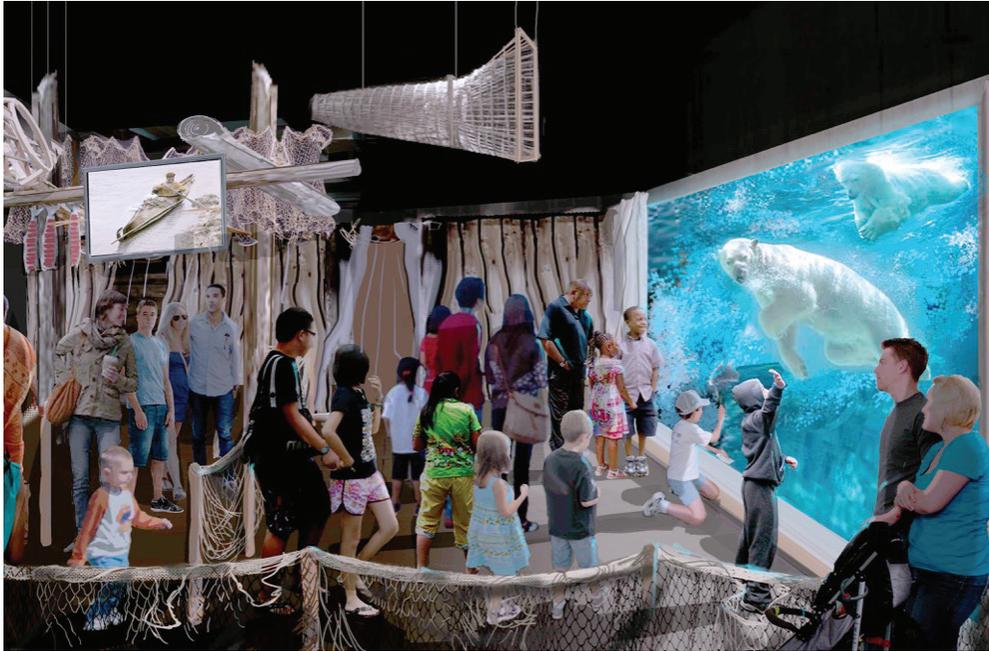
Dr. Adrián Cerezo, Associate Director for Conservation Education Research, Saint Louis Zoo

[As a symbol of the Arctic there are few more iconic examples than Nanook (*nanuuq*, *Ursus maritimus*), the polar bear. In April 2013 Igor Krupnik and I had a discussion with **Dr. Adrian Cerezo**, Associate Director of Conservation Education Research at the Saint Louis Zoo. Dr. Cerezo was interested in learning how northern Native perspectives on polar bears could be incorporated into a planned polar bear exhibit renovation. Igor directed him to the Nanuuq Commission (<http://thealaskananuuqcommission.org/>), a North Alaskan Native organization dedicated to the preservation and conservation of the polar bear. Subsequently, Dr. Cerezo established contact with **Jack Omelak**, the Executive Director of the Nanuuq Commission in Nome, which then developed a close working rapport with the Saint Louis Zoo. Their plan is an exceptional example of how to incorporate northern Native perspectives, knowledge and concerns into exhibits on arctic cultures and environments. In an email Dr. Cerezo wrote, "... bears (as cute as they are) do not talk, but because people in communities do, we have been able to give a human face to a very complex, distant, and challenging topic." Hats are off to the staff and management of the Saint Louis Zoo, and our thanks to Dr. Cerezo for providing the following account of their Arctic Alaska initiative. – **Stephen Loring**]

In the spring of 2013 the Saint Louis Zoo began developing an interpretive plan for the new Polar Bear Point initiative (PBP) that would present information about climate change and engage visitors in conservation actions. This type of challenge had already been tackled by museums, aquariums, and zoos in the United States, but with no significant positive change in beliefs about climate change, and no significant increase in the adoption of new actions.

At this time the Zoo was also re-conceptualizing conservation education to increase the pro-conservation

impact of our exhibition programs. In order to promote behavior change, informal educational experiences must feature direct, real, and relevant interactions. To achieve this goal we needed to invite our audiences to explore our collections and research in order to develop new approaches to conservation.



Rendering of the indoor animal viewing space for PBP. The theming has been designed in consultation with the ANC and the content will be the result of the collaboration with the Native Alaskan villages participating in the project. Rendering by Mike Anderson Studio.

The St. Louis Zoo had no prior experience in polar bear conservation and climate change education so we turned for help to Native communities in northern Alaska. Native Alaskan communities have extensive experience, not only with polar bears, but also with the impacts of changing climate and environments. With guidance from colleagues at the National Museum of the American Indian and the ASC we established contact with **Jack Omelak**, executive director of the Alaska Nanuq Commission (ANC) in Nome.

As we began to talk, it became clear that there were concrete benefits for both parties. Mr. Omelak invited the Zoo to present the Polar Bear Point project to the Commissioners of the ANC and together we began to flesh out the goals of the exhibition and its themes. We agreed that the main goal was to create a direct personal dialogue between our audiences and the Native Alaskans that share their lives with polar bears. We believed this would inspire positive actions leading to more sustainable, long-term solutions to climate change and polar bear survival.

The following messages were central to our work:

- Arctic Native Alaskan cultures are inextricably interconnected to polar bears.
- Climate change is a global phenomenon that will have damaging effects not just for wildlife but also for all humans.
- Native Alaskans have always subsisted by harvesting wildlife within sustainable conservation strategies. The main threat to polar bears today is not hunting but rather the loss and degradation of habitat brought on by climate change. Unfortunately

implementing measures to offset or decrease man-made drivers of climate change are often dismissed as unrealistic or unobtainable. Instead, conservation and recovery plans often erroneously implicate hunting as the principle threat to the survival of polar bears as a species. It is important to realize that the actions and policies

enacted by all Americans have a significant damaging impact on Arctic ecosystems and people.

- Collaboration between traditional, local knowledge/practices and scientific knowledge/tools is necessary to understand the current situation of the Arctic. Multiple organizations and agencies (as well as the general public) need to collaborate to protect Arctic wildlife.

The Polar Bear Point initiative at the Saint Louis Zoo plans to incorporate these messages using the following interpretive approaches:

Theming Instead of relying on descriptive signage, PBP will use “theming” to immerse visitors into a space that has features and objects very similar to what would be seen in a North Alaskan Native village. Native artisans will work in a public setting that provides visitors an opportunity to meet and learn from directly from the person.

Video Journals The main vehicle for sharing the Na-

tive Alaskan village voices will be the presentation of “video journals”. Students in Gambell, Little Diomed, Wales, and Point Lay will produce videos that will be updated on a quarterly basis to reflect both changes in seasons and long-term changes in the conditions in Arctic Alaska.

This approach provides a window into the daily life in Native Alaskan communities. In order to avoid negative cultural, political, and legal implications for the community members (also because we believe that this could be a valuable resource to scholars), we are developing a process to archive the material in a safe place and developing a system of safeguards that will provide access and the use of these materials. Anthropologist **Hannah Voorhees** (University of Pennsylvania) will support these efforts by researching historical images from the different villages and documenting community perceptions of their changing environment.

Working in conjunction with the ANC and the United States Fish and Wildlife Service, we hope this video journal project will develop into an evolving “citizen science” curricula for schools in Alaska as well as the lower-48.

Retail operations Retail operations support the exhibition in two ways: first, by selling products and crafts made by artists in the Yupik and Inupiaq communities in Alaska, and secondly, by selling products that support a sustainability message that reduces our carbon footprint and thus lessen the impacts of global climate change.

Zebras in the Arctic

In order to engage Alaskan communities and teachers, a zoo educator was included in the team from the Zoo that visited Alaska. **Lisa Lidgus** shared experiential, interactive zoo activities with Native Alaskan school children. Rather than focusing the activities on the Arctic and climate change, she centered activities on the animals that are at the zoo that the Native Alaskan villagers seldom get to see: elephants, zebras, lions, cheetahs, etc. This approach provided a fantastic platform for dialogue. She presented what we have learned about animals in other parts of the world and then invited the students and village leaders to tell their story and the story of their wildlife.

During a visit to St. Louis, and after visiting the Zoo, Mr. Omelak helped us formulate an approach to the Alaskan village communities that reflected who and what the SLZ is --a place for people to explore and learn about the diversity of animals in the world and approaches to their conservation.

While it is still several months before the public opening of the PBP exhibition we feel that by embracing a multiple set of voices and opinions, Polar Bear Point initiative has established a new definition of what animal exhibitions can be. The challenge posed by climate



A fifth grade student from Kingikmiut School in the village of Wales examines a piece of zebra pelt as part of a lesson in research and conservation of Grevy's zebras in Kenya. Photo: Adrián Cerezo.

change makes it clear that it is not enough only to provide relevant and accurate information. It also shows the limited value of marketing/advertising techniques to tackle complex conservation problems. Future exhibitions will be judged by the quality of the relationships they foster, the capacity they have to promote dialogue between stakeholders, and how effectively they weave together narrative and action. We should strive for exhibitions in which our simulated realities should also support concrete, and relevant positive actions in the real world.

RESEARCH ASSOCIATES, FELLOWS AND INTERNS

ARCTIC FISHES RESEARCH PROJECT

By: Scott Heyes

University of Canberra researcher, Dr Scott Heyes, an Arctic Studies Center Research Associate, began a six-month sabbatical at the NMNH in January, 2015. His research activities this year have largely focussed on locating and publishing natural history and ethnographic accounts made by the Smithsonian naturalist Lucien M. Turner, who was based in the Ungava Bay (now Nunavik) and Labrador region in the late nineteenth century. Scott has carried out anthropological research with the Inuit of this same region since 2002. He recently teamed up with **Bruce Collette**, Senior Systematic Zoologist at the Smithsonian and the NOAA National Systematics Laboratory, to edit and publish Turner's 1886 manuscript on Fishes of Ungava and Labrador. This manuscript consists of descriptions of about twenty-five species of fish, and is regarded as one of the earliest accounts of fishes in the Eastern Canadian Arctic. With the support of **Dr. Lisa Palmer**, SI Division of Fishes, the research has uncovered beautiful illustrations that were made of fish that Turner described. Scott intends on travelling to Nunavik in May-June 2015 to show Inuit elders these illustrations and Turner's Fishes manuscript, as well as to carry out

research on Inuit taxonomy of fishes, which will be published alongside Turner's notes. Hundreds of fishes collected by Turner are stored in jars and tanks at the Smithsonian's storage facility in Suitland, Maryland, many of which are well preserved.



Scott Heyes working in the Division of Fishes storage area at the Museum Support Center.

While tracking down information on Turner's Fishes manuscript, Scott located Turner's daily meteorological observations that he made while stationed at Fort Chimo from 1882-1884. Stored at the National American Archives in Maryland, this 350-paged log, perhaps not viewed since Turner wrote it, contains rich information about weather events including ice break-up and formation, tides, floods, wind, temperature, snowfall, cloud patterns, and auroras. The logbook also features interesting tidbits about Turner which are unrelated to weather, such as a description of his cabin, the movement and habits of caribou, and the coming and going of fish and birds. This logbook will be the feature of a journal article by Scott in the near future.

In addition to the Fishes project, Scott has been working with **Dr. Kenneth Pratt**, ANCSA Program Manager, Bureau of Indian Affairs, Alaska Region to produce an edited volume titled *Language, Memory and Landscape* (forthcoming, University of Calgary Press, 2015). Further, Scott is co-chairing a session (with Dr Martha Dowsley, Lakehead University, Canada) at the Canadian Anthropology Society conference in Quebec City in May 2015 titled "Re-constructing Landscapes". Scott has given several talks on his current visit to Washington, including a Recovering Voices Seminar at the Smithsonian, and a presentation at the Kluge-Ruhe Aboriginal Art Collection Museum at the University of Virginia, on his involvement in participatory mapping projects with Aboriginal communities in Australia.

INTERNSHIP IN SCIENTIFIC ILLUSTRATION

By: Mitsuyoshi Yabe

I spent nearly two months working as an illustrator intern at the Smithsonian's Arctic Studies Center in January and in July. I drew three drawings reconstructing life at a Basque and Inuit site on the Quebec Lower North Shore. Scene 1 shows late 16th and early 17th century Basque whalers sitting near the fire; Scene 2 shows the Basque and the Inuit working together; and Scene 3

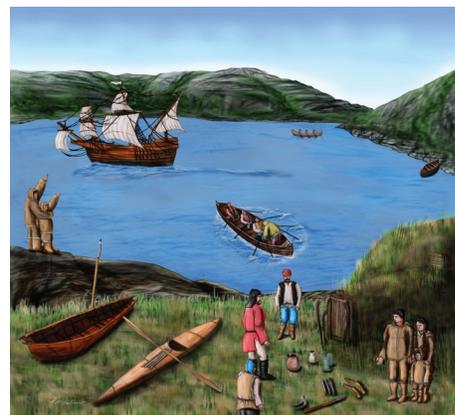
illustrates Basque men and an Inuit family trading as the Basque began departing in their ships while the Inuit wave goodbye.



Mitsuyoshi Yabe

I have a background in geography and history, and so I decided to approach the Anthropology Department for an intern position. To my surprise, Dr. Bill Fitzhugh was very welcoming and he and Laura Fleming provided great support. I am building my career as a scientific illustrator, so I talked with Bill about how to reconstruct the findings from his archaeological work on the Inuit and Basques. I did not know anything about the history of these people, so he gave me material to read, and I was able to envision the happenings at this site between the late 16th to early 18th centuries.

After my research I sketched illustrations of the landscapes of Hare Harbor, the Inuit traditional clothing, sod houses, kayaks, umiaks, artifacts, tools, as well as Basque clothing, pipes, tryworks, cooking hearths, blubber furnaces, sheds, hunting tools, ships, boats, and barrels. I figured out how to draw them appropriately, but Bill usually pointed out details to elaborate the illustrations.



Reconstruction by Mitsuyoshi Yabe of Basque and Inuit at the Hare Harbor archaeological site.

I needed to make a lot of revisions to completely fit Bill's statements and descriptions. I was also confused about the timeline for the Basque's and Inuit's activities, which took a lot of time to decipher. I colored the sketches in Photoshop with the WACOM BAMBOO Tablet, and it took many long hours to color everything in the sketches. While working from my home, I repeatedly emailed the pictures to Bill so he could help correct them. For example, I had to learn how to reconstruct an Inuit sod house. Even though I had read many articles, it was not easy to envision it correctly without Bill's descriptions.

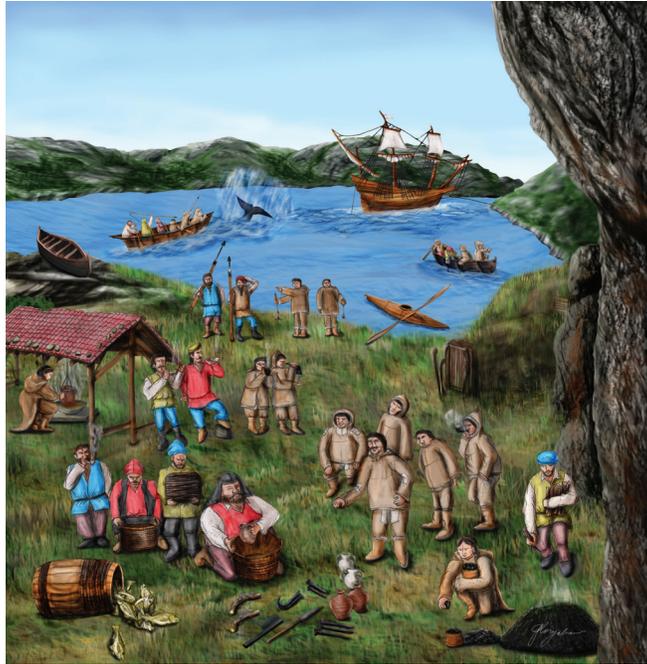


Illustration by Mitsuyoshi Yabe of the departure of Basques from Hare Harbor.

My two-month internship helped me clarify my future career. I believe I will become a scientific illustrator and hope to specialize in anthropological subjects. I really appreciated Bill and Laura being so willing to take such great care of me when I had many questions about Basque and Inuit people. We also ate lunch together at local restaurants and a cafeteria. The internship was an amazing experience in my life.

FROM SAN ANTONIO TO THE ARCTIC STUDIES CENTER

By: *Christine DeMyers*

In the summer of 2014, I traveled from the University of Texas at San Antonio to Washington D.C., to participate in the NSF-sponsored Natural History Research Experience (NHRE) summer internship at the Smithsonian. Here at the Natural History museum, I interned at the Arctic Studies Center under the mentorship of **Bill Fitzhugh** and **Igor Krupnik**. I was treated as a colleague and expected to produce a scholarly research project, which at first, was a little intimidating for a college senior. Before I even arrived at the Smithsonian, I was already set out to study what I understood at the time as food security issues as it relates to climate change in the Arctic.

Upon applying to the NHRE pro-

gram as an undergraduate anthropology student, I expressed my interests and involvement in sustainability, the environment, and human health. My mentors helped me design a project that is now titled "Climate change, environmental risks, and the food security of subsistence communities in Greenland and Alaska." My project was composed of two parts, 1) a historical account of the Norse Colonists in Greenland, whose demise correlates with the onset of the later termed Little Ice Age; and 2) studies of native Inupiat and Yupik people experiencing current climate changes in the western coast of Alaska. I compared the adaptation and mitigation strategies of the historical Norse to current Native Alaskans in order to postulate potential adaptive strategies for Native Alaskan communities today. I distinguished the word 'adaptive' as longer-term sustainable strategies, and the word 'mitigation' as short-term strategies. To compare the success or failure of these strategies, I developed an analytical method where success or failure was measured according to food security, or whether or not the strategy helped the community have access to enough food for an active, healthy life.

Concurrently, I was introduced to the Interagency Arctic Research Policy Committee (IARPC), attended their meetings, and helped out with summarizing one of their webinars on food security. Upon attending these meetings, I have confirmed my interest in a career that involves applying my research to positively influence environmental justice. Through my project this summer, I have cultivated background knowledge of the current literature on food security and health issues that have arisen from anthropogenic climate change.

Interestingly, during my analysis I found that shorter-term mitigation strategies were practiced more often than adaptive strategies by both communities, which I postulated could be a common effort to be food secure while maintaining



Christine DeMyers

cultural practices. It turns out that my preliminary summer research developed an idea that could be explored further in fieldwork, where I would understand what it's like to be within the community by living there with the people. Fieldwork is the definitive way of producing scholarly research about communities of people, especially when having the intention of benefiting their livelihoods or informing policy.

I was initially timid about the research I was going to embark upon and I have been humbled by the scope of the project. As I began to understand a way of learning and interning at the National Museum of Natural History that involves diligent inquiry with experienced scholars, my project became an exciting challenge. Facing a challenge, of course, is the only way that I could have advanced my ability to conduct future, reliable scientific research. I definitely enjoyed my summer here at the Arctic Studies Center. I thank Laura Fleming Sharp for hosting me and I thank Dr. Krupnik and Dr. Fitzhugh for pushing me to do my best.

EXCAVATION AND OSTEOLOGY

By: *Alaina Harmon*

Facing the exhibits in the Grenfell Interpretation Centre, St. Anthony, Newfoundland, visitors are presented with a quote by Wilfred Grenfell, "When two courses are open, take the most venturesome." This past July, with less than a week to prepare, I was offered the opportunity to join William Fitzhugh's summer archaeological fieldwork in Labrador and Quebec. Having studied anthropology, but never having had the opportunity to join a field school, I jumped at the chance.

What I could not have predicted is how broad the material I encountered over the summer would be. From geology, geography, levels of vegetation growth, and area wildlife to area history and cultural anthropology. Every day, be it survey in Labrador, excavation in Quebec, or travel presented new insights and opportunities.

With experience in mammalian collections and natural

history object conservation, I was personally drawn to the faunal remains. In the collections, I have primarily worked with relatively pristine bone, whereas onsite a selection of the long bones and vertebrae found were highly yellowed and had a nearly felt-like texture, indicative of taphonomic context.

My experiences this summer cemented my interest in osteology, the material sciences, and fieldwork. I hope to pursue professional object conservation, both in the lab and at field sites with the intention of beginning the stabilization process at the earliest possible date of interaction with a recovered object. I was also left with great respect for the region and the individuals and families who accompanied us, supported our efforts, and worked alongside us.

JOURNEY THROUGH TIME AND PLACE

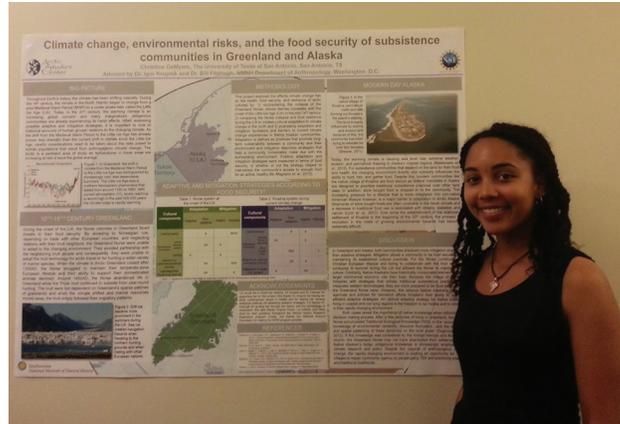
By: *Mariel Kennedy*

By taking part in archaeological surveying and excavation this summer, I was provided an experience that transcended time and place. As a Smithsonian intern working with Dr. **William Fitzhugh**, I was immersed in the culture and history of Labrador and Quebec. In addition to being exposed to the past culture and history, I was able to see

how it necessarily influences current day Labrador and Quebec.

Throughout the field season, the air was suffused with flies and sweltering heat. It was somewhat ironic to be so hot in an Arctic region. Nevertheless, the process of excavation and survey is utterly exhilarating. When archeologists dig they both destroy and preserve. They preserve because they are making something accessible that might be rotting underground otherwise. Yet they also destroy. Digging up artifacts removes them from their context and setting. Given this, it is vital that archeologists are precise and take meticulous notes. Excavation cannot be redone if an error is made.

While working in the field offers unmatched excitement, the most memorable part of the season occurred when I visited L'Anse aux Meadows. As I stood amidst



Christine DeMyers displays her research at the NHRE intern showcase in the Director's hall at NMNH. Photo: Meghan Mulkerin



Alaina in Labrador with Bill Fitzhugh.



Mariel Kennedy at the L'Anse aux Meadows reconstructed Viking site, C.A. 1000 AD.

the reconstructed sod houses at the site of L'Anse aux Meadows, it became difficult to isolate cultures and civilizations. L'Anse aux Meadows is an archeological site that reveals pre-Columbian transoceanic contact. It is where Norse came to North America in search of Vineland and established settlement meeting and trading with Natives along the way. L'Anse aux Meadows is a World Heritage Site. It belongs not to one country, but to humans as a collective peoples having migrated around the entire world. I know by helping to uncover this world history, I can help to connect humans in meaningful ways.

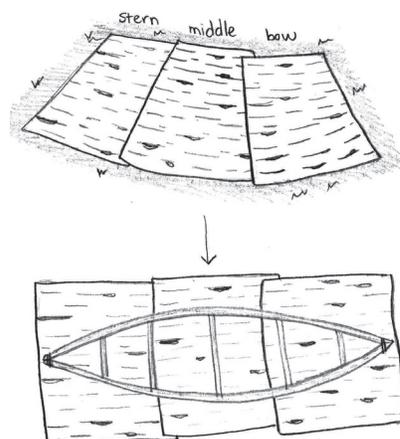
COOPER'S JAMES BAY CREE CANOE MODELS: COLLECTIONS AND ARCHIVAL RESEARCH AT CATHOLIC UNIVERSITY OF AMERICA

By: Bridget McCarthy

In August of 2013, I was accepted to work as an intern at the Arctic Studies Center in the Anthropology Department at the Smithsonian Institution in Washington, D.C. under the supervision of **Dr. Stephen Loring**, Museum Anthropologist and Arctic Archaeologist at the ASC. The internship ran from September 2013, to May 2014, during which time I helped to document artifacts and collections from the Aleutian Islands and Labrador, Canada. A few weeks into my internship, Dr. Loring suggested I explore the history (and whereabouts!) of a collection of James Bay Cree artifacts that were purported to be housed at the Catholic University of America (CUA), the university which I attended. The materials had been collected by the founder of the school's Department of Anthropology and former Chair, **John M. Cooper** (1881-1949). Dr. Loring had long been interested in these collections having seen a small portion of them that were in a display cabinet in CUA's Anthropology Department. I was interested because these artifacts formed a part of the ethnographic collection of the Department of Anthropology and little was known about them regarding their origins and cultural significance.

My research, with Dr. Loring's guidance, builds on a long standing relationship between CUA's Department of Anthropology and the Anthropology Depart-

ment at the Smithsonian. **Dr. William Gardner** (1935-2002), former chair and member of the Anthropology department at CUA, had conducted archaeological excavations throughout the Mid-Atlantic region during his career, including at a number of important Paleo-Indian sites. Gardner's collections, originally housed in the Anthropology Department at CUA were subsequently donated to the Smithsonian when Dr. Gardner passed away in 2002. My internship offered an opportunity to expand this already established relationship between the two departments, and with this I began my investigation and research.



Bridget McCarthy's illustration of birch bark sheets being laid out while building a canoe based on Cooper's field notes.

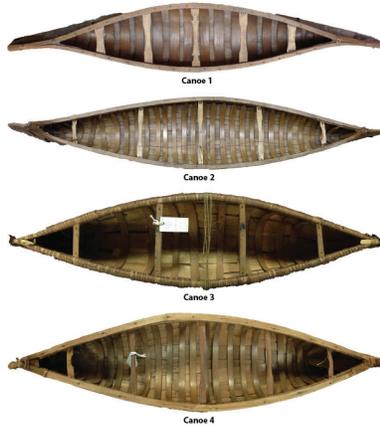
After relocating Cooper's collection (in the Anthropology Department and in storage in the University Archives) I decided to focus my research on a set of four birch-bark canoe models that form a part of Cooper's collection. The condition of the models was surprisingly good due to the fact that they may have not been taken out of the case in many years. With the help of Dr. Loring we were able to pin point the origins of the models to Moose Factory and Rupert's House at the southern end of James Bay, Canada. The information on the labels attached to the models led us to the University Archives where we found valuable archival documentation (field-notes and photographs) which corresponded to the artifacts as well as additional artifacts from the same collection. The archival material included Cooper's field notes on the construction of Cree birch bark canoes stemming from his 1933 fieldwork.

In my research, I focused on a part of the overall collection and conducted a comparative analysis of the



Model canoes from James Bay Cree in Catholic University's Cooper Collection.

canoe models, the field notes and documentation of the materials used to make the canoes. By examining the artifacts and analyzing the archival documents I was able not only to further appreciation of the collection but also to reach conclusions on how this information could be used in future research projects. Cooper's canoe construction field-notes include his drawings which I used to produce illustrations detailing the manufacturing process. The illustrations I made are more geared toward the reader's understanding of the field notes. I believe the illustrations are an essential part of my research as they make the terminology of the notes more comprehensible for those who both may and may not be familiar with the terminology and practice of constructing bark canoes.



Top view of Cooper's birch bark canoe models.

During the course of this research, I was able to collect data regarding the general history of the birch bark canoe in North America from Adney and Chappelle's *Bark Canoes and Skin Canoes of North America* (2007), as well as Jennings's *The Canoe: A Living Tradition* (2002). From these sources I came to understand the historical significance of the canoes' usage by both the native and European population who inhabited northern North America. In my report I describe the four main materials used in bark canoe construction, ---birch bark, tree gum, roots and timber. With the material in mind I then moved on to transcribe Cooper's field notes which, coupled with the illustrations I prepared, enables one to visualize the birch bark canoe construction process before proceeding on to the descriptive analysis and comparison of the four canoe models. Once the canoe models were described and compared I then went back to Cooper's field notes and compared them to the canoe models to see if their manner of construction were parallel to each other.

It is my hope that this work might be used as the basis of further research with respect to Cooper's ethnographic collections and archives that are part of the **Cooper-Herzfeld Collection** at CUA. Should anyone wish to receive a copy of my research report (which further details the extent and location of the collection, scanned copies of the original field notes, my illustrations, and pictures of the canoes models used in my comparisons) please feel free to contact me at bemccarthy03@gmail.com.

2014, *Cooper's Canoe Models: An Analysis of Archival*

and Archeological Material Collected from the Cree Culture by John M. Cooper in 1933., unpublished Capstone BA honors thesis, Department of Anthropology, Catholic University of America

OPENING DOORS TO INUIT MATERIAL CULTURE

By: Krista Zawadski, MA Student, Dept. of Anthropology, University of British Columbia

Krista Zawadski is from Rankin Inlet, Nunavut. She became interested in archaeology and Inuit history during family hunting and fishing trips when she was growing up. Since 2002 she has participated in a number of Inuit Heritage Trust field schools and heritage programs. She graduated from Carleton University with an Honors Bachelor Degree in Anthropology and is now attending graduate school at the University of British Columbia where her research is focused on museology and museum collections. She aspires to do archaeology in Nunavut, and hopes to make archaeology and anthropology more accessible to the people of Nunavut. For more on the Smithsonian's SIMA (Summer Institute in Museum Anthropology) see <http://anthropology.si.edu/summerinstitute/>

This past summer I had the great opportunity to attend the Summer Institute in Museum Anthropology (SIMA) at the Smithsonian Institution in Washington, DC. I always find it a little bit disconcerting when I learn about my own culture from others, namely archaeologists, because I have always felt that I wanted to be an expert of my own culture. While at SIMA I was given that opportunity to expand my knowledge and expertise



An Inupiaq woman's sewing kit from Kotzebue (NMNH E048568) with protective needle case, belt holder and thimble holder.

about Inuit and other Arctic cultures. At the Smithsonian I focused my research on the styles, shapes, forms, and motifs on Arctic needle cases. I wanted to explore whether the art on needle cases might be connected to traditional tattoos in the Arctic. This research is still ongoing. I focused primarily on Alaskan needle cases but have since expanded my research to the Canadian Arctic. **Bernadette Driscoll-**

Engelstad was able to come to the Museum Support Center and the Cultural Resource Center to meet me and discuss my project with me. She provided me with a lot of insight and knowledge as well as helped me expand my research interest and perspective. During SIMA I had the opportunity to learn and implement an array of research methods in museums, including archival research, research with objects in a collection, ethnographic research in the library, photographing objects, looking into accession catalogs, and even learned how to use a microfiche. One of the things I loved doing was reading old ethnographies of Inuit and the Arctic because they are oftentimes rich in stories told by people who have long since passed away. Their voices still carry on. I like to get engulfed in these stories because it brings to me nostalgia of my own past, to my own childhood where we used to tell these same stories to each other as children. Revitalization of these myths, legends, and stories – all still very real and relevant to us today – is important, especially as a form of decolonization. They also remind us of how important it is to have access to these stories through elders, peers, and even old ethnographies.

Some of the highlights of my experience at SIMA were seeing the original maps drawn by **Franz Boas** and Inuit on Baffin Island, meeting a Samoan tattoo master and artist who taught us a tiny bit about Samoan tattoos, and being able to see and touch objects that I love and am passionate about, namely tools. One of the shining moments for me was when **Stephen Loring** brought me into the collections and showed me beautiful pieces such as *sakkuit* (harpoon heads) with side blades, open and closed socket *sakkuit* and a miniature *sakku* (harpoon head). The skill and craftsmanship in making these tools and engraving them is something to admire. I can't begin to articulate the feelings I felt when Stephen opened up cabinets and pulled out drawers of objects that I'd only ever seen in photographs.

Spending time in Washington, DC was also an experience in itself. It was an adjustment to get used to the humidity in the June and July weather. I got to experience the Fourth of July in DC. It was a lot of fun to go out to the National Mall and people-watch as well as see the fireworks. The museums and especially the monuments in DC honor what it means to be American. To me it paralleled what it means to be an Inuk building knowledge about my own identity and heritage; the needle cases and *sakkuit* in their own way honor my



The 2014 SIMA participants photographed at the Museum Support Center. The program director Candace Greene (top row, left) stands behind Krista Zawadski (2nd row center). Photo: Smithsonian Institution Summer Institute in Museum Anthropology.

identity and culture. Spending time at the Smithsonian was an experience that broadened my expertise on my research for my Master's thesis at the University of British Columbia and affirmed my own identity. I also expanded my knowledge about other cultures around the world. I had conversations with people like **Igor Krupnik** and **William Fitzhugh** that broadened my knowledge of museums and archaeology. There are so many other people that I could name and thank for their kindness and teaching. My cultural expertise has been broadened by everyone at SIMA and added to what I have learned from fellow Inuit in my home communities.

At SIMA I was given the opportunity to have access to and look closely at Inuit cultural material. This is a privilege that not many ever get to have and I feel extremely grateful for it. Moving forward, I advocate more open accessibility of Inuit collections to Inuit; I hope to see a museum established in Nunavut in the future. I feel that SIMA has really opened up a lot of knowledge that I had tucked away in my memory, as well as provided me with new knowledge about my heritage. This is part of me becoming an expert in my own culture and heritage. I'm not saying I wasn't already an expert but through this I have created a bridge between museum experts and Inuit.

LEARNING ARCHAEOLOGY THROUGH FIELD REPORTING

By: Austin Tumas



Austin Tumas

The Smithsonian Museum of Natural History in D.C. is my favorite museum and I always wanted to work there. My junior year as an anthropology student at the University of Maryland, I discovered the Arctic world through a paper on the Baffin Island Inuit. I combined both interests and interned for the Arctic Studies Center from January-

April and September-December of 2014. My first term was spent finalizing the 2013 Quebec Gateways project archaeological field report for Dr. **Bill Fitzhugh**, under

the supervision of **Laura Sharp**. I came back in the fall to produce the 2014 report.

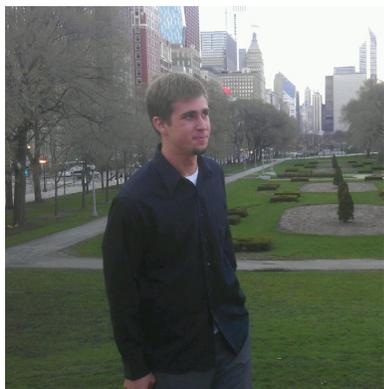
As an ASC intern, I was able to learn and explore the ins and outs of the Natural History Museum and meet some of the famous people I'd only read about in textbooks. I also got to experience the process of creating an archaeological field report from start to finish, including binding the 300-page reports by hand. My work time included several hours at home watching Adobe Illustrator tutorials, editing photos, and drawing (and sometimes redrawing) digital maps using a tablet. Dr. Fitzhugh spent time helping me not only understand the material, but also how it all fit together so that, when the next report needed to be produced, I was able to jump right in.

For me, the most important thing I learned at the ASC was about myself and what I wanted to do after I graduated. I got some good advice from Laura and the ASC fellows and added a minor in GIS to support my anthropology coursework. I broadened my horizons and considered new career possibilities based off of who I talked to and the experiences I gained. Although I am currently not planning on a future at the Natural History Museum, interning for the ASC continues to open doors for me and I am so grateful to have had the opportunity to work for and with everyone there. Currently, I am interning for the National Park Service at Rocky Mountain National Park in Colorado. I will graduate college in December and hope to continue working for the NPS after.

CRASHING INTO ANTHROPOLOGY: WEB WRITING ON ARCTIC CRASHES

By: *Josh Fiacco*

I had the pleasure of working with Dr. **William Fitzhugh**, Dr. **Igor Krupnik**, **Laura Sharp**, and the rest of the Arctic Studies Center team in the spring of 2014, as part of my UCDC work-study program. Despite having no background in anthropology, I was welcomed with open arms and encouraged to contribute my writing skills to the ASC website. During my time with the Smithsonian, I conducted independent research and interviewed the scientists working with the ASC in order to write pages about the current research endeavor, Arctic Crashes. It was truly an honor to be able to work with some of the brightest minds in the field and pick their brains about their projects and research.



Josh Fiacco.

While working at the Smithsonian, I was given numerous fantastic opportunities to participate in fascinating behind-the-scenes activities. I was privileged to be present at the unveiling of The National T-Rex, an event that will go down as one of the most important days of the museum's history. Meeting with media, scientists, and the heads of the museum while seeing the T-Rex bones up close was an impressive experience that I would not have been able to participate in without this internship.

Overall, my ten weeks working with the Arctic Studies Center was a unique and mind-opening experience. To be a part of such a prestigious and exciting organization was something I will not soon forget, and I would recommend an internship with the Smithsonian Museum of Natural History to students in all fields. I cannot thank the team at the ASC enough for the chance to work with them.

INTERNSHIP REPORT

By: *Jordan Boggan*

From September 2014 to May 2015, I had the pleasure of interning at the Arctic Studies Center under Dr. **Bill Fitzhugh**. While I received my undergraduate degree in Archaeology in 2012, prior to my tenure here I only had an inkling about my future plans. Now, nearing the end of my time here, I've gained a much improved understanding about how I want to go forward. Since the start of my internship, I applied to graduate school and am attending Yale this fall to begin my graduate studies, focusing on cultural heritage management and museum studies.

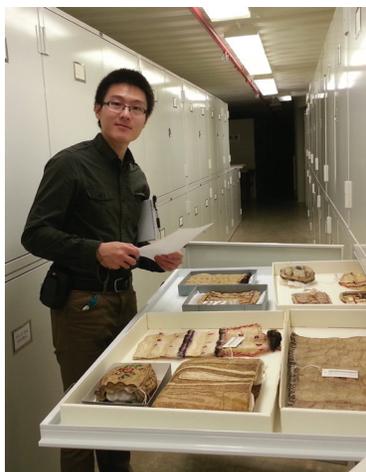
My internship not only opened my eyes to the possibilities one has with an Archaeological degree, but also provided me with the opportunity to work on a wide range of projects and improve my skill sets. In the fall, I chiefly assisted Bill with climate research for an upcoming paper. I located and summarized papers pertaining to recent scientific data regarding environmental evidence for climate change during the Holocene and to cultural adaptations of arctic societies in the past and present. Bill presented a paper for the 2014 AAA conference discussing the significance of standing stones in Mongolia, the Arctic, and Britain, for which I located pertinent sources. During my tenure,



Jordan Boggan staffs the Greenland collections table for Igor Krupnik at the Smithsonian's Arctic Spring Festival, on May 9th, 2015. Photo By: Meghan Mulkerin.

During my tenure, I located and summarized papers pertaining to recent scientific data regarding environmental evidence for climate change during the Holocene and to cultural adaptations of arctic societies in the past and present. Bill presented a paper for the 2014 AAA conference discussing the significance of standing stones in Mongolia, the Arctic, and Britain, for which I located pertinent sources. During my tenure,

Bill entered the final stages of publication for Harri Luukkanen's book, *Bark and Skin Boats of Northern Eurasia*, of which Bill is the coauthor. For this project, I consolidated the in-text references and chapter bibliographies into a database called Zotero, under the supervision of **Meghan Mulkerin**. In the spring portion of my internship, I focused on Edward Nelson's Alaska diaries. I've written an introduction for the diaries' interactive website and continued to determine context and dates for each photograph Nelson took during his expedition to Alaska and the surrounding areas in the late 19th century.



Yifei Wu examines the collections at MSC. Photo: Meghan Mulkerin

Outside of my core projects, I've had some phenomenal experiences with members of the Smithsonian staff. I was able to visit the Museum Services Center three times—each an excursion I'll always remember! Additionally, I had the opportunity to aid visiting ASC Research Associate, **Dr. Scott Heyes**, in his research regarding Lucien Turner. To find more background information on Turner, Scott urged me to visit the National Archives, the Smithsonian Archives, and the National Museum of American History Archives. I'm thrilled to have been given this introduction to the archive system and the chance to work with original 19th century texts. I was also able to attend numerous Smithsonian lectures and the Anthropocene symposium, which exposed me to topics outside of my discipline and, like many of the activities I took part in during my internship, gave me a broader understanding of not only the museum environment, but also the world we live in.

I will always remember my time working in the ASC. Through the guidance given and kindness shown to me by **Bill, Igor Krupnik, Stephen Loring, Meghan Mulkerin, and Dennis Stanford** I've come to realize the path I want to take and through what I've learned in my internship I've gained additional tools to take me down it.

TRANSITION OF SAAMI TOURIST/SOUVENIR ART: FROM GREENLAND TO THE MUSEUM COLLECTION TO CONTEMPORARY SAAMI TOURIST/SOUVENIR ART

By: Yifei Wu

On March 4th, 2015, **Yifei Wu**, a Fellow with the Arctic Studies Center from Uppsala University, gave a lecture on a small collection of souvenir arts from Greenland that was assembled in 1942-1944, when traditional material culture of Greenland was in transition. Some of the objects in the collection were still close to traditional prototypes described in classical ethnographies, for instance, ethnographic works of William Thalbitzer

and Kaj Birket-Smith. Meanwhile, other objects fell under the category of "the fourth world" souvenir arts. Such art has been created to cope with the ever-changing sociocultural context of modernization. He argued that it is possible to establish direct ethnographic order from those traditional prototypes, as reflected in Shaw's collection from East Greenland and in Saami handicraft nowadays.

Yifei would like to thank his advisor, **Hugh Beach, William Fitzhugh, Igor Krupnik, Stephen Loring, and Scott Heyes** for their mentorship during his time at the ASC, and would like to thank **Meghan Mulkerin** for lending her collections expertise to help him locate the objects he wanted

to study out at the Museum Support Center and for encouraging him throughout his stay in Washington.

SOCIAL MEDIA INTERNSHIP WITH ASC

By: Ismelda R. Correa



Ismelda Correa.

I was in residence with the Arctic Studies Center as a social media intern as part of the University of Houston partnership with the Smithsonian for three-weeks. The idea of working on social media in an anthropology office was a new experience for me. While I am confident in my technical knowledge—my major is chemical engineering—I knew

I was going to work on two subjects I had limited experience with: social media and the Arctic. Don't misunderstand me. While I am active on social media as much as every other 20-year-old, I did lack a Twitter and Instagram account. Additionally, I did not know how a research center in the most visited natural history museum in the world used Facebook. Could they post memes?

With her cheerful and approachable personality, my mentor, **Meghan Mulkerin**, soothed my worries soon after meeting her. My assignment was to provide the Arctic Studies Center (ASC) feedback on their social media outreach, which ranged from their own website and blog, *Magnetic North*, to platforms like Facebook, Twitter, and YouTube, and to create some content of my own working with Meghan and **Bill Fitzhugh**. A few days after starting my internship, Meghan arranged

for me to meet two other social media experts within the Smithsonian community; **Maria Anderson**, the Press Secretary for Latino Media and **Adriel Luis**, the Curator of Digital and Emerging Media at the Asian Pacific American Center. In our separate meetings, they discussed successful social media strategies and answered all of my questions. By the end of the meetings, I was better prepared to complete my assignment and amazed at the support the Smithsonian Institution offers its interns. Later on, I also met **Meghan Ferriter**, of the Smithsonian's Transcription Center, who told me all about her *#volunpeers* who transcribe field books and more to benefit other researchers!

As I was learning about the do's and don'ts of the various social media platforms, I worked on honing my tweeting skills. In an attempt to use the information I had learned on successfully engaging with our followers on Arctic subjects, I came up with my first tweet.

Arctic Studies @ArcticStudies May 21
Unangax (Aleut) people built a kayak bow inspired by sea otters! ow.ly/Nf332
@SmithsonianNMAI @NMNH



Ismelda's wildly successful first tweet earned 17 retweets!

During my short internship, I got to see three amazing collections: the Burgess Shale, paleobiology (fossil marine mammals) and the bird collection. The tours were led by researchers within the departments.

As the end of my internship approaches, I appreciate social media is more than a form of entertainment. It is a powerful tool museums are using, and constantly improving, to engage with the American public; a public that has changed and is constantly changing the way they obtain information. Most of all, I have to praise the willingness of the Smithsonian Institution

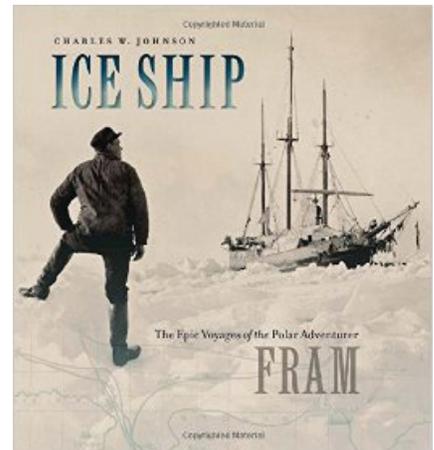
and the smaller research-divisions it is made up of (like the Arctic Studies Center) to embrace the use of social media to reach out to the American public in order to uphold their mission of increasing and spreading knowledge.

BOOK REVIEWS

ICE SHIP: THE EPIC VOYAGES OF THE POLAR ADVENTURER FRAM

Reviewed By: William W. Fitzhugh

Charles W. Johnson has written an exciting book on the history of the vessel, *Fram*, its expeditions, and its crews during its 25 years of polar exploration and research. The story is told in an elegant 218-page illustrated edition produced by University Press of New England in 2014. With *Fram* as the centerpiece of the story, the book documents its historic expeditions, profiles the famous Norwegian leaders of its several Arctic expeditions—Nansen, Sverdrup, and Amundsen, and records highlights of the international competition for the discovery of the North and South Poles.



Front Cover of Ice Ship: The Epic Voyages of The Polar Adventurer Fram.

The “race for the poles” that took place during the 1890s and early 1900s is normally a series of separate stories about these great Norwegian explorers. Here we find the common thread to be a single vessel and a single nation’s ambition that spans the era of sailing ships, motor-assisted vessels, and eventually airplane assisted vessels. One of the few big stories not connected with *Fram* is the Peary-Cook adventure, but we learn a bit about that also.

Johnson begins with Fridtjof Nansen’s vision of constructing a vessel to withstand the pressures of a multi-year frozen drift voyage intended to test a theory about Arctic Ocean circulation. The genius of *Fram* lay in the keen planning that Nansen brought to the vessel’s design and the engineering prowess of its builder, Colin Archer, incorporating improvements gleaned from a century of arctic maritime disasters. The following chapters describe the epic Nansen Arctic Ocean drift (1893-96), with its dual mission of gathering scientific data and a failed—seemingly suicidal—attempt to ski to the pole by Nansen and Johansen when the currents

in ice into which *Fram* was frozen began drifting south. Miraculously, the ship and Nansen with Johansen emerged separately from the ice and reached Norway simultaneously.

The story then turns to *Fram*'s next venture, from 1898-1902, captained by Otto Sverdrup, to explore and reach the North Pole via Robeson Channel between Greenland and Ellesmere Island, Canada. Here the team met Robert Peary, intent on the same goal, both planning to use a combination of dog teams and skis, but with weather and ice were impassable. Instead, Sverdrup's team split into parties that explored, discovered, and named the islands and water bodies west of Ellesmere's east coast. This venture was arctic exploration and science at its very best, without any weight of 'arctic fever' egos. Nevertheless, once again we find it difficult to separate science from publicity due to the need for popular support and financing.

The final chapters document Roald Amundsen's successful expedition to the South Pole in 1910-12. After convincing Nansen to turn *Fram* over to Amundsen for another Arctic Ocean research venture, Amundsen instead secretly sailed south, arriving at the Antarctic ice at the same time as Robert Scott's expedition with Shetland ponies. The series of disasters that befell Scott (drowning ponies, failure to use skis, and poor planning) contrasted markedly with Amundsen's nearly flawless dog-sled and skiing expedition. While all these explorations were taking place, science teams explored the land and *Fram* conducted some of the first systematic observations of oceanographic conditions of the southern oceans.

Johnson relates these events with a keen eye to the personalities and characters of the major and minor individuals, with fairness to all, including tragic figures like Hjalmar Johansen, Nansen's partner on the epic North Pole trek who clashed with Amundsen's strict brand of leadership, was excommunicated from the team, and later died a pauper. We learn much about the financing of the voyages, crew personalities, difficult relations with spouses, and the sad history of *Fram*'s later years, wandering the Pacific, marooned and rotting in Panama, deteriorating further at a Christiana (Oslo) dock until finally being rescued by Sverdrup and turned into a national maritime monument in Oslo in 1935.

This book is a fitting tribute to *Fram* and its singular contributions to early scientific and geographic discoveries of the polar regions. In its brief active life it served an illustrious string of commanders and captains, traversed the planet nearly pole-to-pole, and logged 85,000 miles without a serious mishap. No other vessel comes close to its record of achievement. The author and publisher had done its record proud.

Ice Ship is expertly researched and written; it includes stunning photographs from the expeditions, and remarkable portraits of its key figures. Maps illustrate the

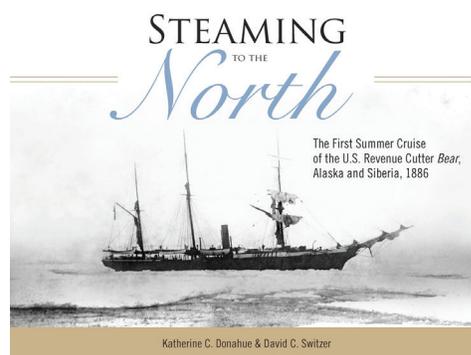
expeditions well, but one needs a detail of the Sverdrup's map to follow the details of discoveries north of Devon Island.

STEAMING TO THE NORTH

Reviewed By: W. Fitzhugh

Following on the heels of *Ice Ship Fram* by Charles Johnson (2014, University Press of New England), another book about an historical boat, the *Bear*, has appeared this year, published by University of Alaska Press, Fairbanks, authored by Katherine C. Donahue and David C. Switzer. *Steaming to the North: the First Summer Cruise of the U.S. Revenue Cutter Bear, Alaska and Siberia, 1886*, is a remarkable story about pioneering U.S.

Government work in the Bering and Chukchi Seas only nineteen years after the purchase of Alaska.



Front Cover of *Steaming to the North: the First Summer Cruise of the U.S. Revenue Cutter Bear, Alaska and Siberia, 1886*.

The backbone and stimulus for the book is a set of glass plate photographs found

by Charles C. McGoldrick, Jr., a professor of Plymouth State University in Plymouth, New Hampshire, under the porch of this house in nearby Woodstock. That fortuitous discovery set in motion a train of events that involved anthropologists, historians, and conservators who contributed to the preservation, analysis, and publication of a cache of 63 mounted and titled photographs. The photos, taken by Third Lieutenant Charles D. Kennedy, documented the *Bear*'s first Arctic cruise from San Francisco to Barrow and Chukotka in 1886 under the command of Captain Michael Healy, who by virtue of his post became the *de facto* senior official of the U.S. Government in Western Alaska until 1895.

The story of this ship, originally built as a sealer in 1874 in Dundee, Scotland, is as remarkable as the story of its first Captain. Michael Healy not only enforced U.S. trade regulations prohibiting the sale and distribution of firearms, liquor, and contraband between scores of lawless whalers and willing Alaska and Siberian Native accomplices; he administered civil justice and medical services, rescued whaling ships and shipwrecked crews, and—upon government orders—was forced to shell and burn the Tlingit Native village of Angoon in Southeast Alaska. This and more from the son of Eliza, an African-American slave, and Irish plantation owner, Michael Morris Healy. Michael Healy was born in 1839 and was sent north along with

his brothers to be educated at Holy Cross in Worcester, Massachusetts. The education worked. One of Healy's brothers became bishop of Portland, Maine, and another the president of Georgetown University. The *Bear* became distinguished in its own right, making forty cruises to the Arctic between 1886 and 1926, and from 1933-41 supported Admiral Richard E. Byrd's Antarctic expeditions. She served in the Greenland Patrol in WWII and after seventy-five years of government work was sold to become a sealer again, only to sink while being towed from Nova Scotia to Philadelphia for overhaul in 1963.

Authors Donahue and Switzer have gone to great pains to research the photographs and the history of the *Bear*, Michael Healy, and his crew of 1886. Taken only a few years after Edward W. Nelson's photographs of western and northern Alaska in 1878-1881 (Fitzhugh 1998), they are among the earliest for this area and document many of the same places and even some of the same people seen in Nelson's pictures. The authors have arranged the images chronologically over the course of the cruise and describe each of the images selected for publication.

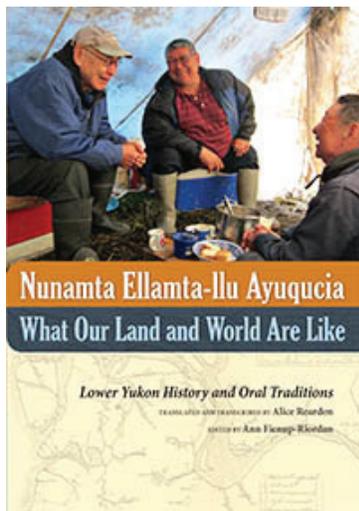
Special attention is given to images including Alaska and Siberian Natives and their clothing, implements, and housing, often following consultation from a host of experts duly noted in the acknowledgments. Intercut with these 'picture essays' are excerpts from the *Bear's* log-book that provide real-time connection with the photographs. The story, however, is more than just an illustrated chronology. Each chapter weaves a portion of a larger picture of the history that was unfolding during these remarkable years as whalers in great numbers began appearing in dangerous icy waters, decimating the huge walrus and whale populations of the Bering and Chukchi Seas; as Alaskan and Siberian Native encountered massive and largely unregulated European influence from shore- and sea-based agents; and as the thin arm of the U.S. Government struggled to maintain a semblance of order in an otherwise lawless territory. Here we see and meet some of the prime-movers of these events—shamans, traders, whaling skippers, and officials—and see, through Lt. Kennedy's lens, the scene from the deck of the *Bear* as she traversed the Bering and Chukchi Seas and returned to San Francisco. She would make almost forty more cruises to the Arctic, but thanks to the authors and Lt. Kennedy's images, and their remarkable preservation, none were as well-documented as the 1886 cruise of the *Bear*.

Fitzhugh, William W. 1998. The Alaska Photographs of Edward W. Nelson, 1877-1881. In: *Imaging the Arctic*, edited by J.C. H. King and Henrietta Lidchi. Pp. 125-142. London:

British Museum Press.

NUNAMTA ELLAMTA-LLU AYUQUCIA/WHAT OUR LAND AND WORLD ARE LIKE. LOWER YUKON HISTORY AND ORAL TRADITIONS.

Reviewed By: Igor Krupnik



Front Cover of Nunamta Ellamta-Illu Ayuqucia/What Our Land and World Are Like. Lower Yukon History and Oral Traditions.

Translated and Transcribed by Alice Rearden. Edited by Ann Fienup-Riordan. Calista Elders Council and Alaska Native Language Center, 2014.

In 2014, the long shelf of bilingual publications on the oral traditions, historical and environmental knowledge, and worldviews of the Yup'ik people of Western Alaska pioneered by our colleague **Ann Fienup-Riordan** in collaboration with Yup'ik translator **Alice Rearden** (and before her, with **Marie Meade**) received a much welcome expansion. A new book of almost 650 pages explores the tradition preserved by Yup'ik Elders of some of the least known corner of Alaska that encompasses the mouth and the lower stream of the Yukon River and the adjacent coast of Norton Sound. The twelve rural communities covered in this book, including Kotlik, Emmonak, Alaskanuk, and Nunam Iqua, have been passed over by generations of anthro-

pologists since **Edward Nelson's** time and by almost two decades of efforts to promote Yup'ik knowledge by the local Elders' organization, Calista Elders Council (CAC).

It took four years to design, implement, and complete the project (2011-2014) to document the oral tradition shared by the people of the study area; several weeks of field surveys and of recording Elders' stories; and many more months in translating the records. National Science Foundation supported the venture via a major grant, as a part of its BEST (Bering Ecosystem Study) Program. It was administered by CAC and its executive director, **Mark John**, whom we warmly welcomed here in 2010, at the opening of the exhibit, *Yuungnaq-piallerput (The Way We Genuinely Live): Masterworks of Yup'ik Science and Survival*. It also required Ann Fienup-Riordan, the book's editor, and her team to move some 150 miles northward from their familiar grounds at Nelson Island, Bethel, and lower Kuskokwim River. Moving to new grounds almost always pays off and in this case it opened to the world the rich but poorly known cultural tradition preserved by the Elders of Lower Yukon area.

As almost every place in Alaska, the Yukon Delta, the low-level marshy flatland turned out to be a thriving cultural landscape filled with place names, historical sites, traces of human occupation and past activities, but first and foremost, with people's memories and

stories. Forty local Elders, whose ages ranged from 60 to 100 (!) years, generously shared what they learned from their parents, co-villagers, and ancestors; but also what they experienced themselves in their youth and adult years. The 560-page record of these stories in Yup'ik and in English, presented as personal narratives, dialogues, and multi-voiced narratives represent a powerful blend that spans far beyond what is usually called *Traditional Ecological Knowledge* (TEK) or people's knowledge of the land, waters, animals, and plants. As in many previous publications produced under the auspices of Calista Elders Council, it includes important aspects of ethics, philosophy, worldview, moral teachings, child-rearing and knowledge passing practices, rules and beliefs, social and verbal sanctions (admonishments), and much more. The book is illustrated with numerous maps, black-and-white and color photographs, both the historical images from the early 1900s till the 1960s and contemporary pictures taken during the fieldwork. We congratulate Ann and her Yup'ik partners on yet another seminal addition to the bilingual library on Yup'ik people's ways of 'genuinely' living, talking, and viewing the world and the land around them.

NAUKAN I NAUKANTSY (NAUKAN AND THE NAUKANITS): MEMORIES OF AN EXILED COMMUNITY

Reviewed By: Igor Krupnik

When powerful nation states expel or resettle their indigenous people under whatever political ideology of the day, they expect the exiles to remain silent, if not grateful. Yet people commonly preserve the memories of their beloved homeland, be it a mountainous valley, a boundless desert or a barren Arctic coastland, often for generations. Anthropologists traditionally assist relocated communities to break the 'yoke of silence' by recording people's memories, collecting historical documents, and converting them into stories with great titles (like *Tammarniit* – 'Mistakes'). Yet the voices of the people themselves commonly are not heard until much later.

Of hundreds indigenous communities across the Russian North closed by the authorities to build a 'better life' for their residents, the fate of the Yupik village of Naukan (*Nuvuqaq*) in the Bering Strait is perhaps the best known. A group of 350 people, a small nation with a distinctive language and cultural tradition, was removed in 1958 from its home place and immersed into decades of successive resettlements and despair. The tragedy of the Naukan people (the *Nuvuqaghmiit*, in

their own tongue) was aptly recalled by **Boris Chichlo**, **Vlaidilen Leontyev**, **Georgii Menovshchikov**, **Peter Schweitzer** and **Evgenyi Golovko**, **Michael Krauss**, **Yvon Csonka**, **Tobias Holtzlehner**, and many Russian and Western anthropologists, including in our recent book with **Michael Chlenov** (2013). Finally, we have a book, in which the Naukan people speak for themselves, in Russian and in their own language.

The 200-page Russian collection titled *Naukan i Naukantsy* (Naukan and the Naukanits) and in Yupik, *Nuvuqaq enkam Nuvuqaghmiit*, presents personal stories about the former life in Naukan and after the resettlement in 1958. The book's compiler, **Valentina Leonova**, Naukan Yupik educator and a daughter of one of the exiled storytellers, carefully recorded these narratives, mainly in the Yupik language, during several sessions in the 1990s by. Born several years after the closure of her native village, she took upon herself to document elders' stories of growing up in Naukan, of everyday hard work, love and marriage, family and social life, and much more. The book contains nineteen chapters (after each of the nineteen storytellers) transcribed from videotapes and translated into Russian; Acknowledgements and Preface in the Naukanski language, and the Introduction written by Leonova; and a short Epilogue by **Igor Krupnik**. The book features dozens of old family photographs, primarily from the

speakers' family collections, as well as their portraits. The original audio copies of the Yupik interviews are preserved in a CD attached to the book.

Altogether, the volume is a remarkable testimony of the power of people's spirit and memory. The fate of the Naukanits was perhaps the closest to what happened to King Islanders on the Alaskan side, except that the Naukanits never had any community institutions in exile, to say nothing of the political and financial means of today's King Islanders in Nome. All they had to rely on were devotion to their culture and language, family and group bonding, a dimming hope, and sheer perseverance. Most of 300-some people removed from Naukan in 1958, including many of the book's storytellers have already passed away. Those who live to this

day, the children and grandchildren of the Naukanits, and all interested readers may now enjoy this beautifully published book. We salute Valentina Leonova and many people who assisted her in this effort, including a much belated financial support from the Chukotka regional administration that never apologized for what had happened to the Naukan nation almost sixty years ago.



Valentina Leonova, with her new book, Naukan i naukantsy. Anadyr, 2014. Photo: Mikhail Germashov, courtesy Valentina Leonova.

TOWARD THE OPEN WATERS: EXPLORATION OF THE UNGAVA PENINSULA

By: Laurence J. Dorr; Reprinted from *TAXON* 64 February 2015: 191–199

Cayouette, Jacques. 2014. *À la découverte du Nord. Deux siècles et demi d'exploration de la flore nordique du Québec et du Labrador.* Éditions MultiMondes, Montreal

Turner, Lucien M. 2014. *Mammals of Ungava & Labrador: The 1882–1884 fieldnotes of Lucien M. Turner, together with Inuit and Innu knowledge.* Ed. by Scott A. Heyes & Kristofer M. Helgen. Smithsonian Institution Scholarly Press, Washington

If one flies from Europe to eastern North America (or vice versa) and occupies a window seat, one should glimpse northern Québec and Labrador (the former Ungava District). I recall one trans-Atlantic flight staring at the sea ice after passing Greenland and then quietly becoming elated when I saw ocean and ice give way to land and forest; I would be home relatively soon. As the plane flew over Labrador I marveled at how uninhabited and inaccessible this vast landscape punctuated by lakes and rivers seemed to be. Naively I imagined this part of Canada to be completely unexplored. However, **Jacques Cayouette** does a fine job of convincing one otherwise.

Cayouette focuses on the botanical exploration of Québec and Labrador north of 54° latitude, which corresponds to the boundaries used for the ongoing *Flore nordique du Québec et du Labrador* (2013–) directed by Serge Payette. This extensive area in excess of 350,000 km² is distinct from and not to be confused with the Canadian Arctic. Cayouette details in 7 parts and 27 chapters the history of how the flora of Québec and Labrador became known—a period involving some 300 years of exploration from the late 1600s until the present.

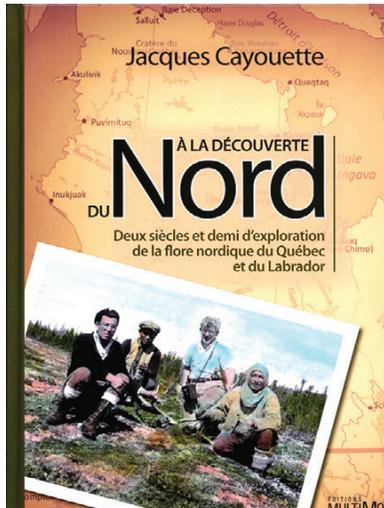
The story is presented more or less chronologically but chapters are grouped by persons, themes, geographic regions, or institutions. Obviously coastal areas near the open waters of Ungava Bay and Hudson Bay were explored first; the interior was sampled only gradually over time. I was delighted to discover that I was familiar with some of the people who had explored northern Québec and Labrador or who had described

species from here because they also worked south of the border in the United States. I detected some of the same patterns of discovery in Canada that I had seen while botanically exploring other parts of the world. In particular, it was fascinating to read about the important, early role played by Moravian missionaries, some of whom became competent naturalists and botanists even though their principal objectives in the region were undoubtedly to proselytize and convert the Inuit and Innu. It reminded me of the invaluable contributions of members of the London Missionary Society, who explored the flora and natural history of Madagascar at almost the same time in the early to late 1800s.

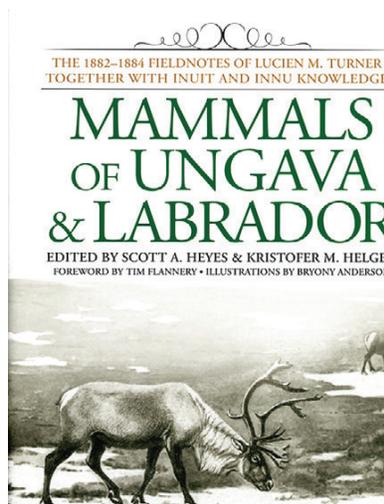
Previously, Cayouette published many of his notes on Canadian botanical history in ephemeral publications such as *FloraQuebeca* (www.floraquebeca.qc.ca/membres/bulletins) and *Quatre-Temps* (www2.ville.montreal.qc.ca/jardin/amisjardin/revue/revue.htm). These reached a Canadian audience but usually not the larger systematics or history-of-science community. Now Cayouette should have the wide audience he deserves. The present volume is profusely illustrated with some 400 images of people, places, plants, specimens, specimen labels, and maps. The book is meticulously researched with extensive notes on primary sources (and here I would include too the many people cited in the acknowledgments) and almost a thousand references. This work is also very well written—a delight to read. *La découverte du Nord* should be acquired by all herbaria and botanical gardens having an interest in North American plants.

Cayouette's work will serve as an important companion not only to the *Flore nordique du Québec et du Labrador* (2013–), but also to the more extensive and comprehensive *Flora of North America* (1993–). Although Cayouette mentions hundreds of botanists who contributed

to our knowledge of the flora of Québec and Labrador, I should note that coincidentally one of them, Lucien M. Turner (1848–1909), is the subject of another book also published in 2014. Turner worked as a meteorologist for the United States Army Signal Corps and was stationed from 1882 to 1884 in Fort Chimo (now Kuuijuaq), a trading post operated by the Hudson's Bay Company and about 50 km inland from the southern end of Ungava Bay in northern Québec. Cayouette



Front Cover of *À la découverte du Nord. Deux siècles et demi d'exploration de la flore nordique du Québec et du Labrador.*



Front Cover of *Mammals of Ungava & Labrador: The 1882–1884 fieldnotes of Lucien M. Turner, together with Inuit and Innu knowledge.*

observes that it was not the weather but ethnology and ornithology that attracted Turner's attention, although he did collect plants that were studied by Asa Gray, W.G. Farlow, and others.

Mammals of Ungava and Labrador explores in detail Turner's zoological and ethnological interests and gives a fuller account of his two-year stay at Fort Chimo. Although this well-illustrated book (nearly 200 figures, many of vintage photos) has little of direct interest to the botanist, it does provide a more complete portrait of the man and reproduces some of his field notes. A lengthy and critical review of *Mammals of Ungava and Labrador* appears in *Polar record* (<http://dx.doi.org/10.1017/S0032247414000266>).

FLORE NORDIQUE DU QUÉBEC ET DU LABRADOR: AN IMPRESSIVE NEW FLORA FOR ATLANTIC CANADA

Reviewed by: Rudolf Schmid [Reprinted from *TAXON* 64 February 2015: 191–199]

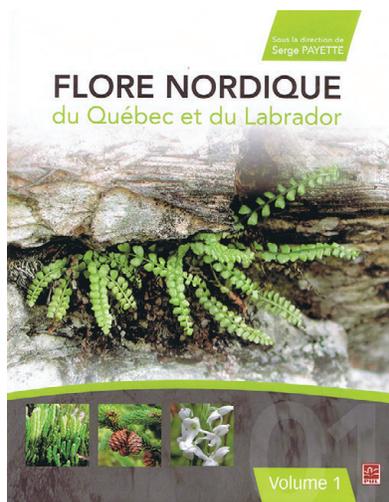
Payette, Serge 2013. *Flore nordique du Québec et du Labrador*. Vol. 1. Presses de l'Université Laval, Québec.

French-speaking Atlantic Canada has had a long history of floristic and faunistic exploration. Much of this has involved southern Québec along the Saint Lawrence River. The standard flora here has been *Flore laurentienne* (1935/1947 supplement, 1964, 1995/1997 corrections) by Brother ("Frère") Marie-Victorin [Joseph Louis Conrad Kirouac (1885–1944); revised 1947/1964 by E. Rouleau, 1995/1997 by L. Brouillet & al.; for review ed. 3 see R. Schmid, *Taxon* 47: 540–541]. The sparsely populated regions of northern Québec and Labrador have also been intensely explored (see previous titled review by Larry Dorr). *Flore nordique du Québec et du Labrador* (2013–) directed by Serge Payette treats the vast area of tundra and boreal forest north of 54° latitude, and from the northern tip of James Bay (the appendix of Hudson Bay) in the west to the Labrador Sea in the east. This vast area has 79 families, 229 genera, and some 730 species and infraspecific taxa of vascular plants versus about 2800 species in all of Québec (pp. 1, 61, 65). Incidentally, the aforementioned two floras for Québec exclude its Gaspé Peninsula and the large region between 48° and 54° north latitudes.

Beautifully done, volume 1 of *Flore nordique* appeared in November 2013. This volume, the first of four, is untitled; "Introduction, Lycopodiaceae–Eriocaulaceae, glossaire" would have been helpful, especially in the future to indicate where in the four untitled volumes one might find a certain family. Of course a family index and general map could and should appear on the

bare endpapers. Payette's 91-page introduction has four parts, each with bibliography: an overview; a history of botanical exploration; the flora in a geographical context; and the biogeographical composition of the flora. A table lists 58 botanists and the numbers of specimens each collected in the region; twelve people have B&W photos (the rest of the book is entirely in color) and bionotes. I was surprised to see among familiar names such as N.V. Polunin (1909–97) and Jacques Rousseau (1905–70) plant anatomist Ernst Cleveland Abbe (1905–2000) of the University of Minnesota, who collected 1275 numbers and who "a contribué à enrichir grandement nos connaissances sur la Flore nordique" (p. 35).

The glossary by Michelle Garneau & Payette is mammoth, 94 pages, and has a 1-page bibliography and 33 plates of stylized color diagrams. Terms are noted in both French and English, definitions naturally only in French. The glossary seems to be complete for all groups (i.e., grasses, composites, etc.). Because of this, one hopes, the glossary will not be wastefully duplicated in later volumes. Thus I included "glossaire" in the suggested title of volume 1.



Front Cover of *Flore nordique du Québec et du Labrador*. Vol. 1.

The 335-page taxonomic part begins with a 16-page key by Garneau & Payette to all families in the flora. Pages 93–94 treat the woody taxa in this land of boreal forest and tundra and is essentially a key for winter botanizing of trees and shrubs in 12 families: Cupressaceae, Pinaceae, plus angiosperms Adoxaceae (*Viburnum*), Betulaceae, Caprifoliaceae, Cornaceae, Diapensiaceae, Ericaceae, Grossulariaceae, Myricaceae, Rosaceae, and Salicaceae (e.g., see my review of a winter guide in *Taxon* 63: 464–465). The remaining 14 pages of the key treat herbs and suffrutescent plants.

After the family key come the copiously illustrated and detailed but clear synoptic descriptions of 32 families by Norman Dignard, Michelle Garneau, Robert Gauthier, Stuart G. Hay, Gilles Houle, and Annie St-Louis. Each family ends with a bibliography and Payette's color maps and discussion of distribution and habitat. Volume 1 treats 13 families of pteridophytes, 2 families of conifers (Pinaceae and Cupressaceae with 4 genera and 5 species), and 17 families of angiosperms APG-III-sequenced from Nymphaeaceae, and Araceae to Eriocaulaceae. [I did not find statistics for numbers of genera and species of pteridophytes and angiosperms.] Three indices to plant names and a two-page color chart end this impressive first volume of *Flore nordique du Québec et du Labrador*. Its execution is exemplary, almost too exemplary because the glossy coated paper will quickly get a trashing in the damp wilds of Ungava.

BERGYBITS

ARCTIC STUDIES ONLINE

The Arctic Studies Center is on Twitter @ArcticStudies, and is also posting the latest ASC news and events via Facebook in order to connect with the Arctic community. Check out our blog, Magnetic North and website http://www.mnh.si.edu/arctic/ for more detailed information and links to additional resources. Like us on Facebook and follow us on Twitter!



Join us @ArcticStudies on Twitter!

SMITHSONIAN VIKING EXHIBIT POPPED UP IN REYKJAVIK AIRPORT



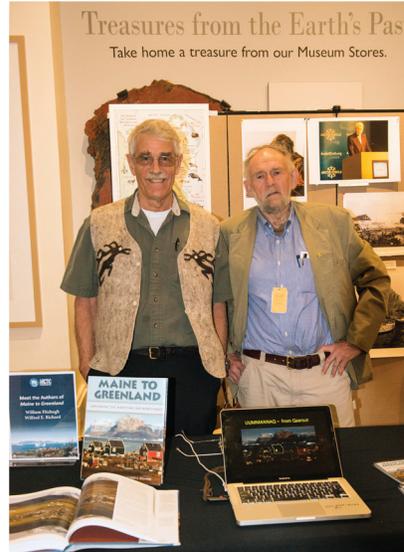
Abigail McDermott discovers the Smithsonian Viking Exhibit in Reykjavik Airport.

Bill Fitzhugh's former assistant, Abigail McDermott, and her son, were surprised to discover vestiges of the ASC's Viking exhibition when they passed through Reykjavik last year. At the close of the traveling tour, we arranged to have several of the cases and reconstructions, including a wonderful model of the L'Anse aux Meadows site in Newfoundland, loaned in perpetuity to the new Islendingur Museum in Keflavik; one part ended up at the airport. Elizabeth Ward, my co-

curator and co-author on the project, part Icelander herself, installed the exhibits and helped run the museum for several years. Yea! Go forward ye ASC partners!

MAINE TO GREENLAND RELEASED

Dr. William Fitzhugh's new book with Wilfred Richard, Maine to Greenland, has been released!



Maine to Greenland on display.

Christmas week saw some promotion for Maine to Greenland at the NMNH sales shop. It is getting strong reviews (like the Sunday Maine Telegram), good sales, and may go into a second printing. Will and I also had a small exhibition and signing at the Peary MacMillan Arctic Museum

at Bowdoin in September, courtesy of Susan Kaplan. And Vikings continues to sell fifteen years after the exhibition closed in 2001!



Maine to Greenland is reviewed in Sunday Maine Telegram.

MCMILLAN'S LABRADOR SNOWMOBILE REDISCOVERED

One of the memorable events of Donald MacMillan's fieldwork in northern Labrador was his 1927 experiment with a Model-T Ford he converted for travel over the snow and ice. The machine worked like a charm and travelled up and down the Labrador coast, becoming a sensation for the Inuit population but an object of derision among sledge dogs that saw it as an ominous omen of the future. Eventually the machine was abandoned in the forest near Nain. Here it kept its own counsel until it was rediscovered by the Nunatsiavut Inuit Archaeology team who rescued it and restored

it to working condition. Soon it will be on display in the planned Nain Museum. Read the full story in the 5 December 2014 *New York Times*.

DR. SCOTT HEYES IN FROM DOWN UNDER

Dr. Scott Heyes, an Arctic Studies Center Research Collaborator from the University of Canberra in Australia came to spend his sabbatical with us in D.C. Read more about his research here on pages 68-9. On April 2, 2015, he gave a seminar under the Recovering Voices Seminar Series on Endangered Languages and Indigenous Knowledge, *Mapping the "Unseen" Landscape: Using Participatory Mapping to raise awareness of an Indigenous Landscape in Australia*. The talk highlighted the innovative methods and outcomes of a participatory mapping project that was carried out in collaboration with Aboriginal groups, natural resource management agencies, local government, and university staff and students, in order to record and celebrate intangible qualities of the Boandik Aboriginal homeland in South Australia. The resulting maps, exhibited locally and at major galleries, have profoundly impacted local perceptions of Aboriginal heritage, knowledge, and connections to the land.

ONLINE ARCTIC RESOURCE: ENCYCLOPEDIA ARCTICA, 15-VOLUME UNPUBLISHED REFERENCE WORK (1947-51) AT DARTMOUTH COLLEGE

There is a great new online Arctic resource of interest: Encyclopedia Arctica, a 15-volume unpublished reference work (1947-51). The volumes are available at: <http://www.dartmouth.edu/~library/digital/collections/manuscripts/arctica/index.html>

"The Encyclopedia Arctica is the typescript of a proposed 20-volume reference work on the northern arctic and subarctic regions. The project was begun in 1947 under the sponsorship of the Office of Naval Research,

Department of the Navy and drew on the expertise of governments (especially Canada), learned societies, and scholars from all over the world. In 1951 the Navy withdrew its support after 3 or 4 million words had been written. ... [Vilhjalmur] Stefansson and dozens of other writers worked on the project for five years."



"The Ford Model T converted for snow travel with Martin Vorse, a member of the 1927-28 MacMillan expedition to a remote region of Labrador. Credit: The Peary-MacMillan Arctic Museum, Bowdoin College." Reprinted from New York Times "Labrador's 'First Snowmobile' Heads Down the Comeback Trail" by Denis Calnan on Dec 5, 2014.



The ASC gang has lunch at the National Gallery of Art in May 2015. Left to right: Bill Fitzhugh, Jordan Boggan, Noel Broadbent, Meghan Mulkerin, Stephen Loring, and Scott Heyes.

Alaska Native cultures are included in Volume 8: Anthropology and Archaeology: The Pacific Eskimo, Bering Sea and Arctic Coast Eskimos of Alaska, The Aleuts and The Indians (regions, peoples, cultures, archaeology) [Tlingit, Haida, and Eyak].

SIT' TLEIN STORY WINS 1ST PLACE!

Sit' Tlein: The Story of Hubbard Glacier's Spirit and Indigenous Knowledge of Tlingit Seal-Hunting Practices Summer 2014 (http://www.lesliehsuoh.com/works/LOh_Sit_Tlein.pdf) was awarded 1st

place in the Alaska Press Club Award for Best Environmental Reporting, with a judge saying, "This piece is beautifully and sensitively written, and offers an inspiring story of science, understanding, cooperation and healing. It carefully navigates a deep cultural divide, taking readers to a spectacular natural setting that serves as a touchstone for exploring how people, place and natural resources are intimately connected."

TRANSITIONS

LYUDMILA S. BOGOSLOVSKAYA, 1927–2015*By: Igor Krupnik*

Lyudmila Bogoslovskaya, Russian biologist and Arctic subsistence and heritage specialist, passed away in Moscow on February 18, 2015. During her long scholarly career, she made a remarkable transition from a neurophysiologist interested in brain functions in small mammals to one of the leading world experts on the Pacific gray and bowhead whales, and colonial birds and became the primary voice in Russia in defense of ecological knowledge and subsistence economies of its aboriginal peoples, primarily the Siberian Yupik and Chukchi of the Chukotka region. Since 1993 she has directed the Center for the Study of Traditional Subsistence Practices at the Russian Cultural and Natural Heritage Institute in Moscow, our partner in the joint *Crossroads Alaska-Siberia* Russian traveling exhibit of 1996–1997.

Bogoslovskaya's transition, after several books, articles, and a Ph.D. in neurophysiology (1968), began in the late 1970s when she led a small team of biologists to Chukotka to conduct field observations on behavioral patterns of whales and colonial birds. I first met her at her field camp on uninhabited Arakamchechen Island, next to a large walrus haul-out site, when we traveled there in 1977 with my Russian colleagues, **Sergei Arutyunov** and **Michael Chlenov**, while surveying the famous 'Whale Alley' and nearby historical sites. We crossed again with Lyudmila in the Yupik community of Sireniki in 1979 and organized a small boat survey of abandoned historical sites to the west of Sireniki using local skin-boats with Yupik hunting crews. Bogoslovskaya eagerly embraced such pattern of fieldwork that put her in close touch with the Yupik hunters and their ecological and spiritual knowledge. In 1981, we made another joint biological and ethno-historical study of ancient sites, bird colonies, walrus haul-outs, and whale feeding areas along 100-km of the Chukotka shore using two Yupik boats with the crews from the communities of Sireniki and Novoe Chaplino. Bogoslovskaya followed with a spectacular skin boat survey of the entire coastline of the Chukotka Peninsula in 1985 and 1987, including Big Diomedes Island. That experience put her in a special position not only thanks to her unparalleled expertise in Chukotka

coastal ecosystems and marine life, but also in terms of her intimate understanding of and appreciation for hunters' knowledge and Native culture.

Bogoslovskaya was focused, energetic, often forceful, and remarkably successful in many of her initiatives undertaken on behalf of her beloved Chukotka and its people. Since her first field years, she argued for the protection of rich marine and terrestrial ecosystems of this area, together with its ancient sites, cultural monuments, and contemporary subsistence practices of local people. In 1990–92, she played critical role in the joint Russian-American initiative to establish an international 'Beringia' Park in the Bering Strait that was co-signed in 1990 by then-U.S. President George H. W. Bush and Soviet President Mikhail Gorbachev. She served as the lead science expert for the creation of its Russian portion, the 'nature-ethnic' Beringia Park established in 1993. Since 1980, we joined forces with her research partner, Russian whaling captain, **Leonard Votrogov**, in a joint appeal to the International Whaling Commission (IWC) to re-establish aboriginal subsistence whaling for bowhead and gray whales in Chukotka that the Russians banned in the 1960s. Aboriginal whaling in Chukotka did resume shortly after the fall of the Soviet Union in 1991, and it was officially endorsed by the IWC, with an annual quota for Chukotka Natives for two whale species, for which Lyudmila produced scholarly justification.

Bogoslovskaya was perhaps most known to her Western colleagues as the leading Russian expert on Arctic whales and Chukotka subsistence whaling. She was one of the co-authors of the international collection, *Inuit, Whaling and Sustainability* (1998, under **Milton M.R. Freeman**) and contributed a chapter to the volume on aboriginal whaling, *Indigenous Ways to the Present* (2003, edited by **Allen P. McCartney**). But she also expanded her field in several other domains of indigenous cultures. She initiated the first census of Chukotka aboriginal sled dogs and active dog teams in the late 1980s, and promoted the 1991 revival of Native dog-races in Chukotka, for which she produced a beautiful catalog of sled dogs, mushers, and traditional dog-training practices called *Nadezhda (Hope): A Race along the Edge of the Land* (2011; English translation



Lyudmila Bogoslovskaya in a skin boat with Yupik captain, Victor Mienkov on her 1985 coastal survey. Photo: Nikolay Konyukhov.

2015). In 2007, she compiled a pioneer sourcebook in Russian on subsistence marine hunting in Chukotka titled *The Foundation of Marine Mammal Hunting* (Bogoslovskaya et al. 2007). Its English translation by **Marina Bell** is currently being prepared for publication by Igor Krupnik and **Rachel Mason** under the ‘Shared Beringia Heritage’ program. In 2008, we published together a Russian collection of heritage materials with a poetic title, *Along the Path of* (Waldemar – IK) *Bogoras: Scholarly and Literary Materials* celebrating indigenous legacy in Chukotka and some of the early scholars who studied it. As in case of her previous books, the bulk of the print-run was shipped to Chukotka and distributed to local cultural and research centers, schools, small museums, and Native readers.

The peak of our partnership with Bogoslovskaya was during the recent International Polar Year (IPY) 2007–2008, when together we coordinated the Russian portion of the international *SIKU* (Sea Ice Knowledge and Use) project (see *ASC Newsletter* nos. 18–19). The main outcome of that effort was a beautifully illustrated Russian book, *Our Ice, Snow, and Winds* (2013) that we co-edited, combining observations of local ice and weather monitors, Elders stories, dictionaries of ice and snow nomenclatures in indigenous languages, and other elements of local ecological knowledge that were carefully collected by our indigenous partners in several Chukotka communities (*ASC Newsletter* 21:52). Lyudmila worked tirelessly to make this book a testament to the richness of aboriginal cultures in Chukotka, despite decades of acculturation, neglect, and side-lining under changing political regimes.

Bogoslovskaya’s life trajectory from a lab-based neurophysiologist to field marine biologist, to environment and heritage protection activist, to the champion of local people’s rights and cultures was indeed remarkable and greatly appreciated by her many admirers. It is worth noting that her friends, the aboriginal mushers of Chukotka— were the first to respond to the news of her passing. A few weeks later, they dedicated the most difficult 135-km section of their 2015 annual dog-race along the Russian Bering Strait shores to Lyudmila Bogoslovskaya and pledged to keep vigils and set memorial meetings for her in all aboriginal communities along the route. It was their special way to celebrate Lyudmila’s contribution to Chukotka cultural revival. A person whose name is now associated with something so deeply rooted in Native tradition and, at the same time, so modern and vibrant, will be indeed long remembered.

NOTED ALASKA HISTORIAN, LINGUIST RICHARD DAUENHAUER, 1942-2014

By: Mike Dunham

Reprinted from Alaska Dispatch News, Aug. 20, 2014

Former Alaska Poet Laureate **Richard Dauenhauer** died of pancreatic cancer on Tuesday in Juneau. He was 72. A noted historian, linguist, editor and educator,



Dick Dauenhauer, with his wife, Nora Marks Dauenhauer, participated in the North Words Writers Symposium in May 2014. Katie Emmets / Skagway News.

Dauenhauer made particularly important contributions to the preservation of Tlingit lore and language.

Rosita Worl, executive director of the Sealaska Heritage Institute, which published major work by Dauenhauer and his wife, Nora Marks Dauenhauer, said in an email that “Dick Dauenhauer’s contributions to Tlingit culture are immeasurable. ... He brought to life the words and wisdom of our ancestors that otherwise might have passed into oblivion but for his persistence in collecting the stories and his ability to transcribe and translate and publish the oral traditions of our ancestors. ... His Tlingit language grammars have been significant in contributing to the survival of our language.”

Born in Syracuse, New York, in 1942, Dauenhauer earned degrees in Russian, Slavic and German before coming to Anchorage in the late 1960s, where he taught at Alaska Methodist University. He published translations of Russian poetry but had a particular interest in bardic traditions of ancient civilizations.

“The Vikings and Anglo-Saxon founding fathers would take a poet into battle to crank out an ode about them,” he told a columnist for the Anchorage Daily News in 1986. “That was the way things were done.”

At AMU, now Alaska Pacific University, he met his future wife, Nora Marks. Marks, with family roots in Yakutat and Hoonah, was fluent in the Tlingit language and traditions. Through her, Dauenhauer realized that the epic literary style of “Beowulf” and “Iliad,” centuries removed from contemporary Western society, remained within living memory in Southeast Alaska.

Together, the Dauenhauers became a formidable team, recording, documenting and translating the memories of Tlingit elders over a span of nearly a half-century. Their many published works range from doctoral theses to elementary primers.

Among their most important books were those in the

four-volume “Classics of Tlingit Oral Literature” series. They received two American Book Awards from the Before Columbus Foundation, for the second and fourth volumes, “For Healing Our Spirit” and “The Russians in Tlingit America,” the latter written with Lydia Black. These books recorded histories and tales that would likely have been lost forever without the Dauenhauer’s efforts.

Worl noted his contributions as a teacher. “He mentored many students through the years, many who are carrying on his work,” she said. “We mourn the loss of a great person, but we are thankful that he came into our lives and culture.”

Dauenhauer learned Tlingit and taught upper-division classes in the language at the University of Alaska Southeast. UAS Chancellor John Pugh tapped him to start the college’s Alaska Native Languages and Culture program.

Though he was scholar of several languages, it was those of Alaska that most concerned him. “Nothing that we do in German or Russian at the University of Alaska Southeast is going to impact the future of the language,” he told the Associated Press in 2005. “But with Alaska Native languages we can make a difference. With the Native languages in Alaska, this is the homeland, and if the language dies out here it dies out forever.”

In addition to his work as a collector, anthologist, translator and editor, Dauenhauer was a well-respected poet, like his wife, the current Alaska writer laureate. During his four-year tenure, which ended in 1986, he sought to elevate the public perception of literature in his adopted state. He said he particularly lamented the mindset of Outside publishers who thought “Alaska poetry has to have a moose in it.”

Promoting the best in contemporary writers went hand in hand with his enthusiasm for Native traditions. As early as the 1980s he was involved in efforts to “design a (university) humanities curricula that would put the classics of the Alaska Native oral literature in the curriculum along with European and Asian literature.”

In her email, Worl noted that Dauenhauer “was a perfectionist in wanting to ensure accuracy.” But for all his seriousness as a scholar, Dauenhauer also had a quick sense of humor.

Noting the lack of any ceremony at the installation of a new Alaska poet laureate -- an honorary post now called writer laureate -- he once quipped, “Maybe we could all go to Chilkoot Charlie’s.”

IN MEMORIAM: DONALD HURLBERT, NMNH SENIOR SCIENCE PHOTOGRAPHER (1954-2014)

By: Meghan Mulkerin

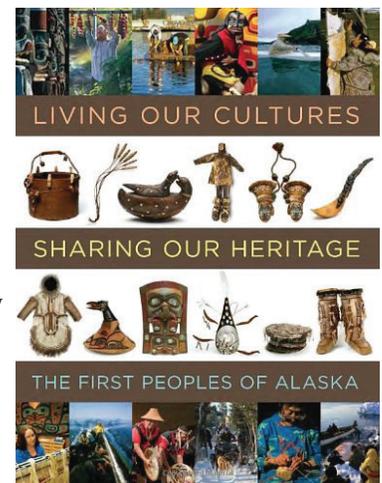


Don Hurlbert

Esteemed Senior Science Photographer, **Donald Hurlbert**, passed away on June 8, 2015, following a tragic car accident. The entire Smithsonian community is in mourning and sends sincere condolences to his wife, **Barbara Watanabe**, Museum Specialist in the Department of Anthropology, and to Don’s family and friends.

Don worked on many projects with the Arctic Studies Center over the years, from exhibits to publication photographs. Without Don’s considerable talents, these products of ours would have been incapable of inspiring even half of the wonder that one experiences seeing the vitality of his photographs. He truly made the collections come alive; no small feat to illuminate and capture the spirit of all of the amazing objects that would otherwise rarely have been seen without his skill and dedication. Just as Don’s photographs sparkled with life and electricity, so too, did he. We will dearly miss his friendship, humor, and generosity.

In memory of Don, we would like to share just a few of the photos he



Don Hurlbert beautifully photographed the collections featured in Living Our Cultures, Sharing Our Heritage: The First Peoples of Alaska and contributed his artistry to many Arctic Studies Center exhibits and publications over the years.

has taken for us over the years.

A memorial service will be held in Baird Auditorium at NMNH on September 10 from 3-4:30pm, followed by a reception in the staff and Atrium cafes. If you would like to contribute material such as photos, or share your memories during the program as a speaker, please email Kelly Carnes (carnesk@si.edu), who is coordinating. Even if you are unable to be present for the service, your favorite stories of Don are still welcome and will be a great comfort to his wife Barbara and their family during this difficult time.

A full obituary appears in the *Montana Standard*, June 17, 2015. http://mtstandard.com/news/local/obituaries/donald-edward-hurlbert/article_30343b86-ca1d-5f62-9c74-df540484084a.html

We will miss you, Don...



Barbara Watanabe and Don Hurlbert.



A fleet of Aleutian kayak models photographed by James Di Loreto and Donald E. Hurlbert.



Ceremonial House Model, Yup'ik Culture Qasgiq, 1885, SI NMNH: E76698. Photographed by: Donald E. Hurlbert



Don making magic happen.



Paleoindian fluted point of Ramah chert found in Vermont. Photo: D.E. Hurlbert



Small ivory carving from the Karob Cove site on Agattu in the western Aleutian Islands, Alaska. Photo: Donald E. Hurlbert



Snuff-Box, Seals Coupling. SI NMNH: E048839. Photo: D.E. Hurlbert.



Yup'ik Hunting Hat, Nelson Collection, SI NMNH: E176207. Photo: D.E. Hurlbert.

2014 ASC STAFF PUBLICATIONS

Crowell, A. L. (series editor)

2014 *Listen and Learn: St. Lawrence Island Yupik Language and Culture Video Lessons*. Written by Lauren Shutt, Dawn Biddison, and Aron Crowell; edited by Dawn Biddison. Arctic Studies Center, Smithsonian Institution and Shared Beringian Heritage Program, National Park Service. Government Printing Office, Washington DC.

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2014 *Listen and Learn: Iñupiaq Language and Culture Video Lessons*. Written by Lauren Shutt, Dawn Biddison, and Aron Crowell; edited by Dawn Biddison. Arctic Studies Center, Smithsonian Institution and Shared Beringian Heritage Program, National Park Service. Government Printing Office, Washington DC.

Crowell, A. L. and Sharon L. Kay

2014 Плетеные Изделия Алеутов В Кунсткамере: Связь Традиционного И Современного Искусства (*Aleut Basketry at the Kunstkamera: Linking Traditional and Contemporary Arts*) in АЛЕУТЫ: Каталог коллекций Кунсткамеры Санкт-Петербург (Catalog of the Aleut Collections of the Kunstkamera, St. Petersburg), edited by S. A. Korsun, pp. 39-46. Museum of Anthropology and Ethnography, Russian Academy of Sciences, St. Petersburg.

Crowell, A. L.

2014 Cook and Russian Colonialism in Southern Alaska. In *Arctic Ambitions: Captain Cook and the Northwest Passage*, edited by James K. Barnett and David Nicandri, pp.149-169. University of Washington Press, Seattle.

Fitzhugh, W. W.

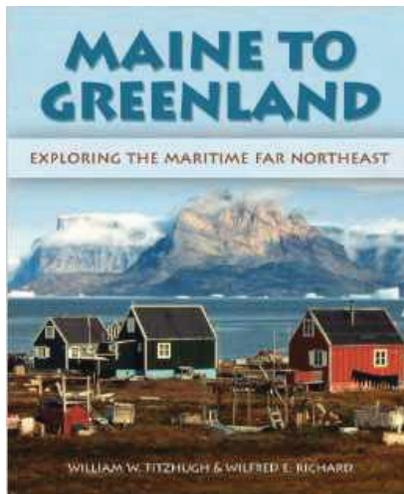
2014 Basques and Inuit at Hare Harbor-1 and the Inuit Hart Chalet site on the Quebec Lower North Shore. *Provincial Archaeology Office 2013 Archaeology Review* 12:33-49. Department of Tourism, Culture, and Recreation, Government of Newfoundland Labrador. St. John's.

Fitzhugh, W. W.

2014 *The Gateways Project 2013. Land and Underwater Excavations at Hare Harbor and Brador*. 264 pp. Arctic Studies Center, Smithsonian Institution, and the Université de Montréal. Co-author: Erik Phaneuf. Photos: W. Richard, E. Phaneuf. Produced by A. Thomas, K. Braymer, and L. Sharp.

M. Raghavan et al. (including **Fitzhugh, W. W.**)

2014 The Genetic Prehistory of the New World Arctic. *Science*. 29 August 2014: 1255832 [DOI:10.1126/science.1255832].



Front Cover of Maine to Greenland.

Fitzhugh, W. W.

2014 The Ipiutak Spirit-Scape: an Archaeological Phenomenon. In *The Foragers of Point Hope. The Biology and Archaeology of Humans on the Edge of the Alaskan Arctic*. Edited by C.E. Hilton, B.M. Auerbach, and L.W. Cowgill, pp. 266-290. Cambridge University Press.

Fitzhugh, W. W. and Wilfred Richard

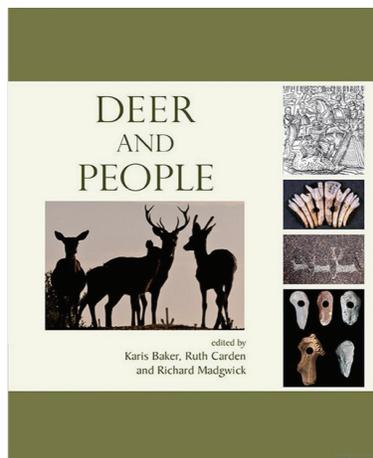
2014 *Maine to Greenland: Exploring the Maritime Far Northeast*. 272pp. Washington DC: Smithsonian Books.

Fitzhugh, W. W.

2014 Climate Modeling of Sea Ice, Harp Seals, and Eskimos in the Eastern Subarctic. In *Climates of Change: the Shifting Environment of Archaeology*. Proc. 44th Annual Chacmool Conference, edited by S. Kulyk, C. G. Tremain, and M. Sawyer. Pp. 23-52. Chacmool Archaeological Association. Calgary: University of Calgary.

Fitzhugh, W. W., K. Lymer and R. Kortum

2014 Deer Stones and Rock Art in Mongolia During the 2nd-1st millennia B.C. In *Deer and People*, edited by K. Baker, R. Carden, and R. Madgwick. Pp. 159-172. Oxford: Oxbow Books.



Front cover of Deer and People

Krupnik, Igor

2014 Sergei Bogojavlensky and His Legacy in Alaskan Socio-Cultural Research (Introduction and selection of SB texts, with notes and comments). *Alaska Journal of Anthropology* 2014, 12(1):25-52.

Krupnik, I.I., L.S. Bogoslovskaya, B.I. Vdovin, V.V. Golbtseva, N.I. Kalyuzhina, V.I. Nuvano.

2014 Project SIKU in Eastern Chukotka, 2007-2013: The Role of Indigenous Knowledge in the Era of Global Change. *Ecological Planning and Management* 2014 2(15):72-88 (in Russian).

Hajo Eicken, Mette Kaufman, Igor Krupnik, Peter Pulsifer, Leonard Apangalook, Paul Apangalook, Winton Weyapuk Jr., and Joe Leavitt.

2014 A framework and database for community

sea-ice observations in a changing Arctic: an Alaskan prototype for multiple users. *Polar Geography*, 2014, 37 (1): 5-27.

G.C. Ray, G. Hufford, T.R. Loughlin and I. Krupnik.

2014 Bering Sea Seals and Walruses: Responses to Environmental Change. In: *Marine Conservation: Science, Policy, and Management*. G. Carleton Ray and J. McCormick-Ray, eds. 2013, Wiley-Blackwell, pp. 171-199 (Chapter 7).

Loring, Stephen (co-authored with Chelsee Arbour and Anthony Jenkinson)

2013 Caribou paths and stone hearths: archaeological fieldwork at Kamestastin, Spring 2012. Provincial Archaeology Office 2012 Archaeological review. Government of Newfoundland and Labrador Department of Tourism, Culture and Recreation Volume 11:7-23.

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Thanks for helping and reading! See

you next year. In the meantime, don't forget to keep up with us online!

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2014/2015 ASC FELLOWS

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SPECIAL THANKS TO OUR 2014/2015 ASC INTERNS AND VOLUNTEERS

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